NATIONAL FISHERMAN

SEPTEMBER 1959

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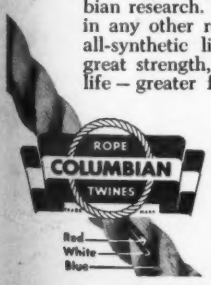

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The Lookout

Danish Quality Control

The need for increased quality standards in the fishing industry was strongly stressed at this year's National Fisheries Convention. Chain store buyers emphasized that quality must be consistently tops and that more fishery products should be brought under quality standards.

With the industry becoming more quality conscious, it is interesting to note the comprehensive fish inspection service employed by Denmark. Despite its comparatively small area, this country has a fish inspection personnel of 112 people operating in 39 districts.

In Denmark the Quality Law pertains to all aspects of trade in fishery products as well as methods of catching, storing, transporting, freezing, preserving, and the handling of fish and fish products. Fish for export and domestic use as well as imported fish come under the jurisdiction of the law.

The fish inspector is present when the fish is landed, when it reaches the processing plants, the freezing houses, and until it is ready for the wholesale and export trade. He is also called upon to inspect the processing plants, the sanitation control, quality of the raw materials, production in general, quality of the products, and the labeling or marking of the products.

The quality law contains rules which must be adhered to virtually as soon as the fish is caught right up until it is purchased by the housewife. In general these provisions state that clean and sanitary conditions must be maintained wherever fish and fish products are stored or handled. For example, aboard fishing vessels, the fish must be stored in such a way that the bottom ones are not destroyed by those on top.

Another important provision of the law states that fish which are not caught alive must be iced and cleaned immediately. If the fish is caught alive, it must be kept in water of good quality until it reaches the consumer. When transporting fish, steps must be taken to provide proper protection against weather.

Quality assessment of fish is usually made by judging the texture, appearance, odor, and taste.

A Quality Committee has been established in Denmark to assist the Minister of Fisheries in all matters pertaining to the quality control of fish and fish products. The committee consists of five trade representatives, one representative of the health authorities, and one representative of the Ministry of Fisheries.

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FISHERY PROGRESS

► Atomic Waste Dumping Sites

The Atomic Energy Commission has given notice of proposed issuance of a license to the Department of the Navy, for disposal of low level radioactive wastes in the Atlantic and Pacific Oceans at a minimum depth of 1,000 fathoms.

The types of waste to be handled generally consist of residual solutions from experiments, contaminated paper, cloth, glassware and equipment, animal carcasses and sealed sources of raidoactivity which have been reduced to unusable levels by decay.

Disposal containers and disposal sites would meet recommendations of the National Committee on Radiation Protection for disposal of radioactive wastes in the ocean.

The approximate locations of the Pacific sites are (1) 185 miles west southwest of Los Angeles, California, and (2) 115 miles due west of San Francisco. The location of the Atlantic sites are approximately (1) 200 miles due east of Cape Cod, (2) 105 miles east southeast of Cape Henry, Virginia, and (3) 120 miles southeast of Sandy Hook, New Jersey.

► Block Classifications

The U.S. Customs Court in New York City has rendered a decision on the proper classification of imported fish blocks at one cent per pound, when the block and its immediate container weigh in excess of 15 pounds.

In containers under 15 pounds, the duty rate is 12½ percent ad valorem. The decision bears out the contention that imported fish blocks are further processed than fish fillets. This decision reverses a previous ruling made by the Bureau of Customs.

► Atomic Dumping Tests

Skindiving oceanographers of the Coast and Geodetic Survey have completed monitoring of simulated packages of "radio active waste", dumped into 97 feet of water off the New England coast. The operation was carried out under contract with the Atomic Energy Commission.

The Browns Ledge studies are part of a larger project planned to find out what happens to radioactive waste dropped into the sea, so that the best disposal areas and methods can be determined.

The Atomic Energy Commission wanted to know whether containers break open immediately, gradually disintergrate, or are buried in the bottom. Metal drums weighing up to 1,200 pounds were dropped under varying current conditions.

► Fisheries Assistance Act

The House Merchant Marine and Fisheries Committee has favorably reported to the House a bill that would provide a construction subsidy for fishing vessels of 33 1/3 percent. It is limited to segments of the industry denied escape clause relief. A million dollars a year would be provided for three years allowing the construction of about 20 vessels a year.

The Senate Interstate and Foreign Commerce Committee has held short hearings on similar legislation and is expected to report favorably a bill very much like that reported by the House Committee.

If the legislation were to become law and provide construction subsidies for escape-clause-denied segments of the industry, it might provoke more escape clause actions from other segments of the producing industry.

► Oceanic Research Indorsed

Increased oceanic research has been indorsed by the Senate Interstate and Foreign Commerce Committee, in a resolution calling for more modern research vessels, and trained men to man them.

The resolution, backed by the full committee, approved research programs by the National Academy of Science, the Navy, the Coast and Geodetic Survey, and the Bureau of Commercial Fisheries.

The resolution asked the President, the Budget Bureau and departments and agencies having maritime responsibilities to consider the programs, with a view to launching a comprehensive ocean study of at least ten years duration.

► International Commission Funds

Senate and House conferees recently have filed a report making appropriations for the International Fisheries Commission to enable the United States to meet its obligations in connection with participation in eight organizations pursuant to treaties or conventions, and for implementing Acts of Congress.

Recommended by both House and Senate, was $1,725,000, an increase of $61,300 over the 1959 fiscal year appropriation, but $29,000 below the amount requested in the budget estimate.

► Named to Advisory Committee

Ross Leffler, Assistant Secretary of Interior, has announced that Ray H. Full, Kishman Fish Co., Vermilion, Ohio, and Harold F. Cary, American Tuna Boat Association, have been named members of the American Fisheries Advisory Committee.

► Shrimp Transfer Regulations

James E. Barr, executive secretary of the Texas Shrimp Association, recently consulted in Washington with Customs Bureau officials and members of Congress with regard to a Customs regulation that would prohibit the transfer of shrimp at sea.

Many feel that prohibiting the transfer of shrimp would be harmful to the industry, because the fleet could not operate as efficiently.

Describing the proposed regulation, Barr said the transfer of one ship to another on the high seas is legal only so long as the two vessels are owned by the same individual or firm.

When the transfer is affected from a vessel owned by A to one owned by B, and the boat owned by B brings the shrimp to port, B is in violation of his vessel's license.

B's vessel automatically becomes a cargo vessel and the violation prevails although no charge is made for transport. Continuing, Barr said the penalty for violation of license is forfeiture of the vessel, its cargo, tackle, furniture and apparel.

New Fish Unloader Tester at Gloucester

A new weighing device, for providing more accurate weights and improving quality has undergone tests at a Gloucester, Mass, plant, according to the Bureau of Commercial Fisheries Technological Laboratory in East Boston. The fish are dumped into a cone-shaped container and the larger pieces of ice are removed by hand. The load is then placed on an agitating, conveyor belt which shakes the smaller pieces of ice out. When the fish has reached the weighing box, no ice remains. That eliminates the five percent allowance for ice now in effect.

Since the operation is done by hand, pitchforking is eliminated, raising the quality of the fish. When 500 pounds of fish have been loaded into the weighing box, the conveyor belt is stopped, the box is emptied, and the process begins again. The system is now being tested to improve its operating efficiency. Since the tests were begun, the hourly capacity has been increased from 15,000 to 33,000 pounds.

After the most efficient design is determined, plans will be released for use by any company. The experiment is part of the Bureau of Commercial Fisheries project to improve fish quality. Other studies include a conveyor belt to eliminate pitchforking in the holds.

Military Salmon Requirements

Anticipated canned salmon requirements by Military Subsistence Market Centers for armed forces are: fiscal year 1960 (July-June) 4,578,000 lbs. and 1961, 3,135,000 lbs.

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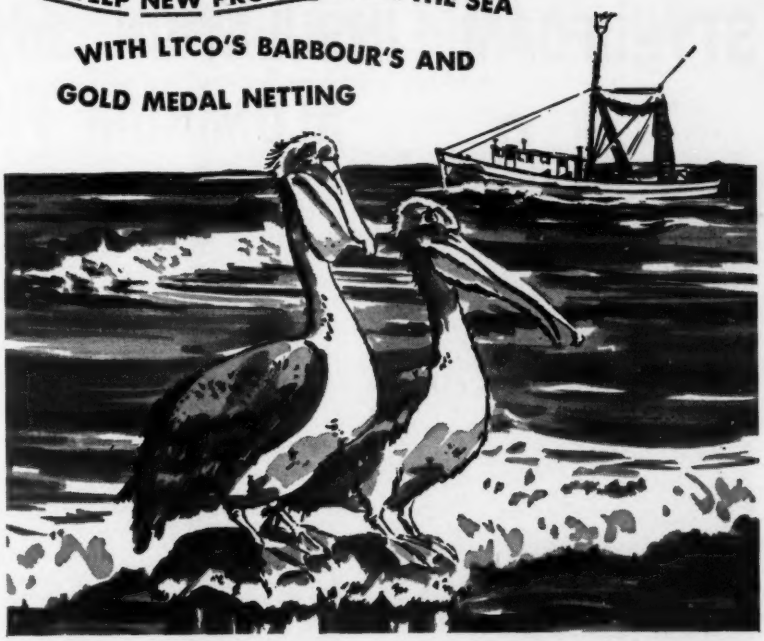

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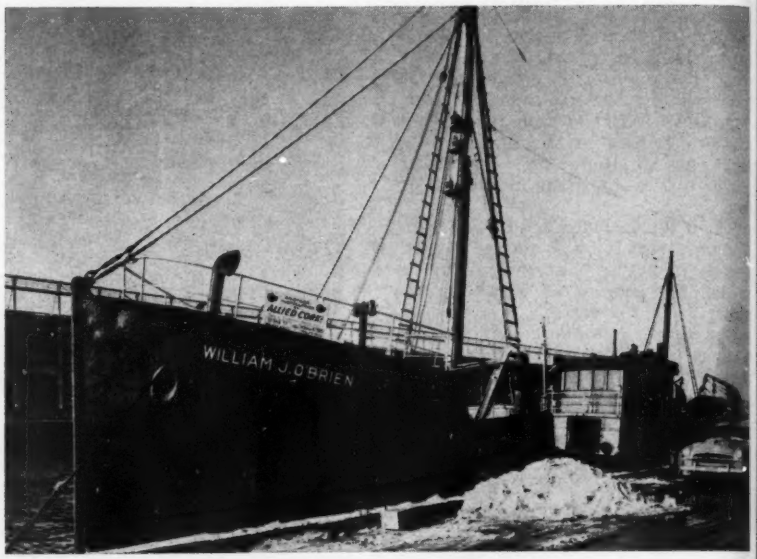

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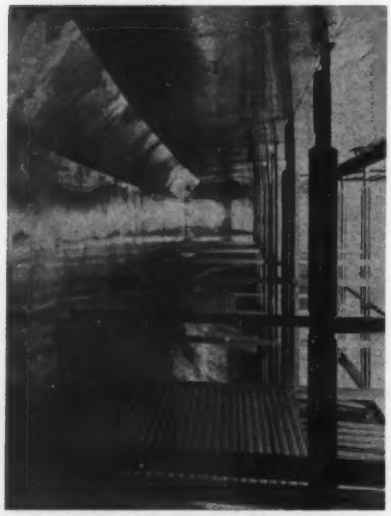

Aluminum skin over Styrofoam insulation in fish hold of "William J. O'Brien."

Excellent operating results are reported for the new Styrofoam* insulated, aluminum-lined fish hold in the Boston trawler "William J. O'Brien" of Shawmut Fisheries, Inc.

The hold is lined with aluminum alloy which has high strength and good resistance to corrosion. Pen boards are aluminum extrusions with ribbed configuration.

Styrofoam (a Dow plastic foam) provides superior low temperature insulation. It resists passage of water and water vapor, and retards the transfer of heat.

Also installed in the vessel was a new walk-in refrigerator for the galley. It is completely aluminized inside with special .072 gauge alloy, and has an aluminum-clad cooler door, built for heavy-duty service. A complete mechanical refrigeration system was provided.

Walk-in refrigerator in "William J. O'Brien" is aluminum sheathed and insulated with Styrofoam.

The entire job of insulating and sheathing on the "William J. O'Brien" was designed, engineered and installed by Allied Cork, Inc.

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Unused Oyster Shells Good For Seed Cultch

Surplus shells washed up on South Carolina river banks suitable renewable resource for seed oyster production

OLD oyster shells, washed up on the banks of South Carolina creeks and rivers by wind and wave action, may prove a suitable substitute for steamed-shell cultch. Although the state now has a surplus of cultch from the steam canneries, this may dwindle as an export seed oyster industry develops.

Because of lower set and survival rate on washed shell, it is in some ways superior to steamed shell. Experiments indicate that while usually about one-half as efficient as steamed shell, it is satisfactory for use in trays, baskets, or suspended bags for collecting seed oysters. The use of washed shell for cultch would tend to eliminate overcrowding. Thus, although not the perfect substitute for steamed shell, it can be used as cultch, particularly as steamed shell becomes unavailable.

South Carolina waters are well suited for producing small seed oysters. After the industry has satisfied its demands for shell planting there is approximately one-quarter million bushels of shell remaining annually. This surplus shell, sold for purposes other than oyster cultivation, could be used for the production of seed oysters. However, companies with surplus shell piles sometimes show an unwillingness to releave them at prices which would make the shell usable by the seed oyster industry. Thus possible substitution of old washed up shell is considered.

South Carolina washed shell seems to lack resilience. It feels chalky and it is easier to scratch with a knife than steamed cultch. Microscopically, washed shell is pitted and eroded.

Reef shell, or mud shell samples obtained from the Corpus Christi Bay area of Texas, is generally coated with a marl or clay-mud mixed with small shell flakes. It is thicker than washed shell and is more riddled with sponge. Samples have contained a higher percentage of small broken shell than does the average sample of South Carolina washed shell.

From time to time, Bears Bluff Laboratories, Wadmalaw Island, S. C., has attempted to use washed shell as a substitute for steamed shell. Although useful for hardening soft bottoms, it settles too rapidly to give good results as cultch. On bottom firm enough to hold up washed shell, it is too susceptible to wave action and movements by currents.

For seed oyster production, however, the results are more promising. In view of the increased interest in seed oyster production for out of state markets, the possible shortage of steamed shell develops.

On June 1, 1955, two half-bushel shell bags, one with washed shell cultch and one with steamed shell cultch, were hung on cables just above low water in We Creek at the Bears Bluff laboratory. The steam cultch was the usual cluster type with several lower valves attached together. The washed shell was made up of selected deep-cupped shells, largely individuals. Twenty days later, spat on ten inner faces from each type of cultch were counted. The spatfall ratios was 7 to 5 in favor of the steamed shell cultch.

In August 1956, fifty, half-bushel bags of shell were suspended on cables in We Creek above low water. The bags of steamed and washed shell were alternated. The washed shell had been screened through a 1 x 1 inch wire to remove fine shell. This eliminated approximately 50 per cent of the bulk of the washed shell as it was taken from the banks. In November detailed studies showed that the intensity of setting was 1.0 spat per square inch for the steamed shell and 0.51 spat per square inch for the washed shell.

Although it had been screened, the washed shell contained a higher percentage of small and flat pieces of shell than the steamed cultch. The bulk of the steamed shell was made up of cupped and cluster shells. The washed shell was 65 to 70 percent flat upper valves of which 60 percent had only one spat. Only 20 percent of the steamed shell had one spat and 70 percent had 3 or more per shell.

Commercial oyster fishermen planting oyster shells for cultch in N.C. waters.

At first inspection the spat on the steamed shell seemed larger than those on the washed shell. However, a series of measurements showed little differences. Measurements of 93 spat selected at random showed that the main size was 25 x 19 mm on the washed shell. Of 138 spat on the steamed cultch, the mean was 29 x 19 mm. The largest spat on steamed shell was 55 x 26 mm, while on washed cultch the maximum size was 46 x 25 mm. Thus the variance in size of spat on the different types of cultch seems insignificant.

In May 1957, before setting began, bags of washed shell and steamed shell again were hung on cables in We Creek above low water mark. The bags were so hung that every other bag was washed shell. The washed shell had been screened as before.

By May 21, both types of cultch had accumulated a fair catch of spat. The steamed shell had 4.4 spat per square inch; the washed shell 2.8 spat per square inch. That is roughly 20 spat per shell for steamed cultch, and 12 spat per shell for washed cultch. On June 6, 1957, shells from the two types of cultch bags showed a catch and survival of 8.5 spat per square inch for steamed shell and 9.5 for washed shell.

If the seed oyster industry does adopt the use of washed shell as a substitute for steamed shell, the question of how availability arises. Along the edge of most of the larger coastal rivers in South Carolina, particularly where the long reach of the river runs northwest to southeast of northeast to southwest, fairly large seas are built up at the time of moderate to fresh winds. Maximum tidal current velocities in these costal rivers and inlets exceed 2 knots. When wind and tide oppose, the seas build up and shell from dead oysters is piled up along the edge of the river. There are many thousands of piles of shell along the banks of the creeks and rivers of South Carolina.

(Continued on page 28)

* From material by G. Robert Lunz, Bears Bluff Laboratories, Wadmalaw Island, S. C.

Pacific Tuna Clipper Stability Problems

THE geometry, internal arrangements, and fishing methods of the clippers of the Pacific Coast tuna fleet have led to a number of transverse stability problems which are peculiar to that class of vessels. It has been pointed out that conventional methods of figuring yield an inadequate estimate of the transverse stability for that type of vessel.

It results from the vessel's strong tendency to trim by the stern at angles of heel greater than that at which the deck edge is submerged. Therefore, the basic usual cross-curve method, (i.e. no heel induced trim) is not accurate.

Results so calculated will not accurately represent the actual behavior of the vessel. This leaves a great portion of the final judgment concerning the vessel's stability to the experience and intuition of the designer.

H. C. Hanson, Seattle, Wash., naval architect, has noted the loss of some 75 vessels during a three-year period, with the implication that a significant number of the losses is attributed to inadequate transverse stability.

"Santa Helena", San Pedro, Cal., tuna boat recently converted to seining is 136 feet long and is powered with 1000 hp Enterprise Diesel. She is owned by the Van Camp Seafood Co.

In an attempt to partly offset the lack of design knowledge, underwriters have required multiple inclinings of the completed vessel, in conditions representing loadings during various phases of operation. While such multiple inclining experiments yield valuable insight into initial stability of the vessel, it must be remembered that ships, when capsizing, exceed by a considerable margin the range of heel angles.

Moreover, the low freeboard-to-beam ratio of tuna clippers results in the submergence of the deck edge and a consequent, radically altered shape of the immersed volume at relatively small angles.

Effect of Trim on Transverse Stability

The Pacific Coast tuna clipper is characterized by great freeboard and somewhat V-shaped sections forward combined with practically no freeboard and extremely broad, flat sections in the afterbody.

With such a freeboard distribution, an angle of heel sufficient to immerse the deck edge aft will invariably result in a trim by the stern. When typical forebody and afterbody sections of a tuna clipper are inclined to a large angle of heel, it is noted that the immersed wedge area of the forward sections is larger than that of the emerged wedge. This is because of the flare of the topsides.

In the aftersections, as a result of extremely low freeboard, the immersed wedge falls far short of equalling the emerged wedge in area. Consequently, in heeled condition there is a lack in volume in the after body and a surplus of volume in the forebody, shifting the center of buoyancy forward.

To maintain balance, the ship must trim by the stern until the buoyancy center is in the same position occupied in the upright ship. The vessel's trim which results from heel, therefore reduces the actual righting moment compared with the righting moment computed by the conventional cross curve method assuming no trim.

The magnitude of the trim-induced error in the conventional stability computations has been determined for two tuna clippers representing the typical, broad square stern form and the other incorporating somewhat different stern lines, finished off with a semi-cruiser stern.

Excerpted from material prepared by John Paulling, Jr., assistant professor naval architecture and marine engineering, University of California, presented at the 2nd World Fishing Boat Congress, Rome, Italy.

At each of ten stations, for a fixed angle of heel, the area and moment of area up to each of several parallel waterlines are obtained by means of an integrator in exactly the manner followed in the usual cross curve computation. A curve of transverse stability was obtained for each of the vessels, together with a second curve computed by the usual method of cross curve.

All four of the curves gave values of righting arms corrected to an initial GM obtained from the stability booklet prepared for the vessels. The condition of loading in each case corresponded to that of the vessel full of dry frozen fish and with double bottom fuel tanks full. This loading, while not always the condition which results in minimum stability, generally results in GM value near the minimum encountered in operation and is typical of the loading under which the vessel operates during an appreciable part of the time.

The most striking feature of the stability curves was the markedly dissimilar behavior of the cruiser stern and the square stern vessel. The great difference which developed, between results with and without trim, for the latter came primarily from the extreme difference in the shape fore and aft.

In the cruiser stern design, the after sections had more nearly the same shape as the forward sections below the waterline, differing primarily in the amount of freeboard. The bait wells located aft compensated for the lack of freeboard to some extent, in both cases.

Transverse Stability in Longitudinal Waves

When the vessel operates in a following sea, the transverse stability varies with time as the ship encounters succeeding waves. In general, the transverse stability is at a minimum when the wave crest is amidships. If the initial metacentric height (the vertical distance between the center of gravity and the point of intersection of the vertical through the center of buoyancy) is sufficiently small, though apparently adequate for calm water, the transverse stability of the boat in a wave crest may be reduced dangerously low value.

The actual experience of vessel A illustrates the situation. In calm water, the metacentric height and righting arms, while relatively low, were considered acceptable since the range of positive righting arms is fairly large. In waves, the righting arms, crest amidships, are vanishingly small or negative over the entire range. This vessel having marginal stability to start with, capsized and

(Continued on page 28)

Migratory Habits of Atlantic Shad

THE Connecticut River shad population is approaching the 1941-46 size when the best record catches were made. This increase in population has resulted from an increased number of shad which were allowed to escape the fishery and spawn as a result of state regulations based on Bureau of Commercial Fisheries recommendations. The fishway on the Connecticut River at the Hadley Falls Dam, Holyoke, Mass., passed 15,000 shad during 1959 run.

Research on managing the Atlantic coast shad resources centered on the St. Johns River, Florida, during the 1958-59 run. An important part of the research establishing the Bureau's recommendations have been the studies of Gerald B. Talbot and James E. Sykes, Fishery research biologists, Bureau of Commercial Fisheries, which determine the pattern of American shad migrations along the Alantic coast.

The returns from 17,508 tags from various places along the Atlantic coast over a 19-year period, were the basis of the studies. Thirty-nine percent of these tags have been recovered, disclosing that after spawning, adult shad from Chesapeake Bay to the Connecticut River migrate northward and spend the summer and fall in the Gulf of Maine. Canadian shad migrate southward to spend the same period in the Gulf of Maine. There is only slight evidence as to where shad spend the winter months.

It appears that they are scattered along the Middle Atlantic area, probably in deep water, for beginning in January or February as the spawning season approaches they move inshore and shad which spawn from Georgia to the St. Lawrence River are caught from North Carolina to Long Island. Those not caught migrate either north or south to their native streams and spawn, repeating this cycle each year if they escape natural and fishing mortalities.

The young shad leave their native stream in the fall; probably spend the winters in the Middle Atlantic area, migrate to the Gulf of Maine each summer along with the adults; and when mature return to their native streams to spawn. Those that spawn in streams south of Chesapeake Bay and particularly south of North Carolina die after spawning. How or by what mechanism shad are guided in their migrations has not yet been satisfactorily determined.

Shad are the largest members of the herring family in the United States. They are anadromous, spawning in the spring of the year in streams from the St. Johns River in Florida to the St. Lawrence River in Canada. The spawning migrations begin earliest in the south (November in the St. Johns River) and are progressively later in northward rivers. The eggs are about 3mm. in diameter, are non-adhesive and are deposited loosely in the water. After absorbing water the eggs sink to the river bottom and are carried along by the current. The number of eggs produced each season per female averages about 250,000.

The eggs hatch in 6 to 8 days at 17°C. The young live in the rivers during the summer and usually migrate to sea in the fall of the same year at which time they are 3 to 5 inches in length. Shad mature and return to the rivers to spawn 3 to 6 years later. Most return at 4 or 5 years of age. After spawning, most again return the following year to their native river to spawn. At this time, they are called "repeaters". The age of shad and number of times they spawn can be determined from examining scales.

Determining Migration

Tags used by Talbot and Sykes to determine their conclusions were mostly two celluloid disks, one on each side of the back just below the dorsal fin, held in place by a nickel pin passing through the fish. A few strap tags were affixed to the gill covers, and also check tags consisting of a plastic disk affixed to the outer surface of the gill cover by a rivet. A return legend and serial number were printed on each tag for identification purposes and a reward was paid as an incentive to the finder for return of the tag.

Fishermen removing shad from their nets at Edgewater, New Jersey.

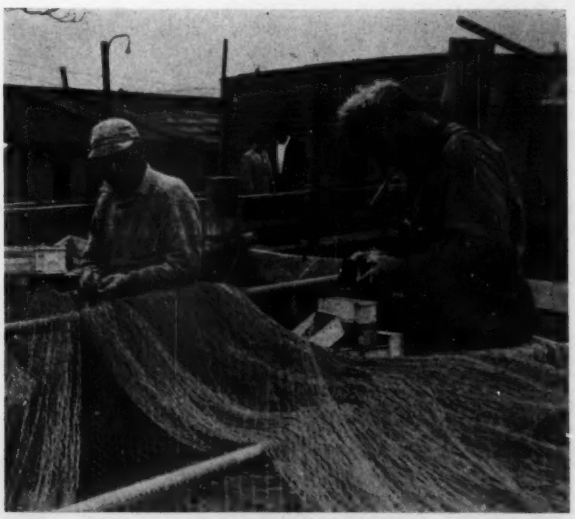
All of the shad were tagged during the spring spawning run with the exception of those tagged in Maine during August and September. The disk type tags gave the highest percentage returns (40 per cent), while only 11 per cent of the strap and 8 per cent of the cheek type tags were recovered.

Five percent of the tags used to demonstrate migrations were captured from one to four years after tagging. Of these, 55 percent were recovered on the spawning grounds. Since there was no way to determine where the fish bearing these tags had been during the intervening periods, it was assumed that these fish were repeating a migration pattern made each year.

Maine Tagging

The returns from Maine tagging were handled separately. This tagging was carried out during August and September and illustrates a migration pattern different from those tagged during the spring months.

(*Continued on page 22*)



New Jersey shad fishermen caring for nets used to catch the fish which are found all along the Atlantic Coast.

NORTH ATLANTIC

Outside Draggers Opposed By Maine Whiting Fleet

Representatives of Maine's whiting boat owners and crewmen went to Augusta recently, to seek legal curbs against out-of-state fishing draggers, most of which are from Massachusetts. The Maine fishermen were to see and confer with Atty. General Frank Hancock and Sea and Shore Fisheries Commissioner, Ronald W. Green.

The fishermen aired views on what they term an "invasion" of the Gulf of Maine by outside fishermen. A shortage of whiting has caused several skippers to consider tying up for the season. They expect no action this season that would keep out the Massachusetts boats which they say are "cleaning out" the whiting grounds.

Green said he is hopeful that a satisfactory solution can be worked out. But, he said a proposed increase in licensing out-of-state vessels from the present $100 to $2,000 or $3,000 would have to be enacted by the legislature. Green continued that his bureau has three patrol boats for coastal waters, which regularly check out-of-state craft to determine if they are among the 27 presently licensed by the state. However, local fishermen feel that waters within Maine territorial limits are not adequately patrolled.

Publicity Program Stepped Up By Maine Sardine Council

The Maine Sardine Council is expanding its public relations activities and has engaged the firm of Palmer, Codella Associates of New York to handle the job. The expanded program will emphasize the nutrition and health values of Maine sardines, development of the youth market, and increased consumption among present users.

Council chairman, Calvin Stinson of Birch Harbor said the appointment climaxed a three month search for a new agency. Palmer, Codella's presentation convinced the council they could provide the vitality and excitement the industry requires. The Council's annual budget for this phase of its operation is approximately 100,000 dollars.

Stinson said "Maine sardines have excellent distribution and are consumed in every state of the union. However, research shows that the middle aged and older consumers represent a disproportionate share of the market. A major portion of the promotional activities in the next few years will be aimed at the youth market directly. It will also tell the nutritional and health story to mothers of young children."

Diver-Lobsterman Competition Being Checked in Maine

Maine Sea and Shore Fisheries commissioner, Ronald W. Green, believes progress is being made in checking the competition between skindivers and lobster fishermen. Green said fishermen in various areas along the coast have become concerned about divers with underwater breathing equipment, who have obtained fishing licenses. The greatest objection is in York County where a group has been formed with the intention of drafting legislation to make diving for lobsters illegal.

Two hundred names were signed to the petition, which was sent to Green, calling his attention to the problem. Green and his wardens have investigated the situation, he said, and are taking the matter up with skindiving clubs. "I feel we can get the cooperation of the clubs in recognizing the problem of the commercial fishermen," he said. "Most of the divers are cooperative. It's the fringe element that is the problem."

Most Maine lobster diving has been for recreation or to obtain a few lobsters for personnel consumption, according to Green. However, a few divers have tried it commercially. Diving is easiest when the lobsters are shedding. During the shedding season, fishermen have set their traps close in shore and they believe it is the bait which attracts the lobsters to the area, where divers may take them easily.

Controlling Maine Shellfish Enemies

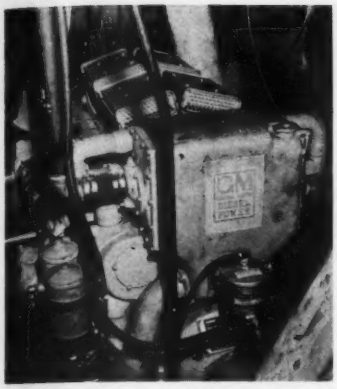
A lindane barrier experiment to exclude green crabs from clam flats is being conducted at Pope's creek at Wells, Maine, by the Bureau of Commercial Fisheries. Five trawl lines of about 100 hooks each have been placed across the mouth of Pope's Creek and are held to the bottom by lead weights. Each hook is baited with alewife that has been soaked in lindane making it poisonous to green crabs. Presumably, the crabs coming from the sea, will find the bait and feed on it before reaching the clam flats.

May Shelve New Bedford Pier Plan

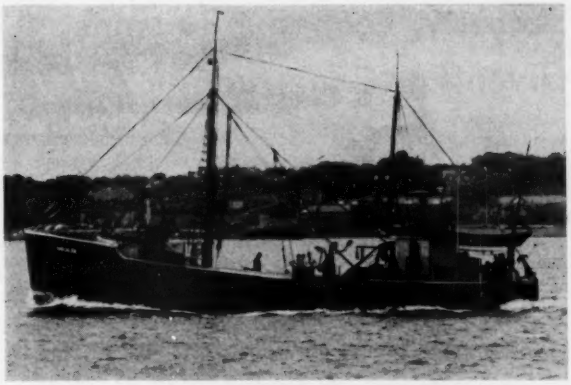
Plans for the construction of a $3,000,000 fish pier in New Bedford, Mass. could possibly be shelved by the Harbor Development Commission until next year, because the state's share of the project have been cut from the budget.

The availability of Marine Park as site of construction remains unsettled. The city solicitor studied the matter and reported a special bill would have to be passed by the Legislature. The question involved is whether or not permission of previous land owners is necessary before the land can be put to such use. Quit-claim deeds stipulate the property can not be used for "commercial or wharfage uses, municipal or private."

Fisherman's Dock, operated by lobster buyer Lew J. Wallace at Friendship, Me. Lobster boat is owned by Capt. Warren Thomas Delano



81' New Bedford, Mass. dragger "Whaler", owned by John J. Gobell, and her new General Motors 12V-71 "V" series Diesel, sold by Hubbs Engine Co.



New Bedford Dragger Whaler Gets New Model Engine

The New Bedford, Mass. dragger *Whaler* made a successful trial run early this month following installation of her new General Motors 12V-71 "V" series Diesel. Improved cruising speed and good handling characteristics were reported.

She is the first North Atlantic dragger to be powered with the recently introduced General Motors 12-cylinder engine which develops 335 hp. continuous at 1800 rpm. and has many of the same design features as the GM 6-71 model.

Sold by Hubbs Engine Co. of Boston, and installed by Hathaway Machinery Co., Inc., Fairhaven, Mass., the engine replaces a 250 hp. low speed model. The new Diesel swings a 58 x 39, three-blade propeller through a 4.15:1 Twin Disc reduction gear, and is said to more than equal the maximum shaft revolutions per minute given by the former engine.

A counter shaft, driven by a 3:1 front power take-off, drives the vessel's 5 kw. generator, bilge pump and wash down pump. A Lister Diesel power unit drives the auxiliary 5 kw. generator, air compressor and fish hoist.

Owner of the *Whaler* is John J. Gobell, who is vice president and treasurer of the Seafood Producers Association, as well as New Bedford Postmaster. The vessel was built for him 16 years ago by Morse Boatbuilding Co. of Thomaston, Maine. She is 81' overall, has 19' beam and 9' draft. There are 8 bunks forward and 2 aft, and her fish hold capacity is over 80,000 lbs.

Landing catches regularly at New Bedford, the *Whaler* has been a steady groundfish producer. Her skipper is Capt. Mat Wise, and Dick Dyer is engineer.

Story Renovates Railway

Story Marine Railway, South Portland, has renovated the track of its railway, and replaced and leveled timbers for a distance of 250 ft. beyond the low water line. Yard foreman Melvin Campbell died last month of a heart attack at the age of 49, after 20 years with the firm.

Boats recently hauled by Story include the 98' dragger *Frances L. MacPherson* owned by John J. Burke of Gloucester, Mass. which had new oak sheathing; the 75' *Elinor & Jean*, Capt. Louis Thompson, Portland, damaged stern rebuilt from waterline up; 43' *Kyack*, Maine Marine Products, Portland, caulked, painted and fitted with new 5-blade 26 x 16 Columbian propeller; 61' *Surfman*, Harold Gowen, Portland, caulked and painted, portions of planking and sheathing renewed. The 104' Gloucester dragger *Maristella*, recently purchased by Gowen, was hauled for survey.

Watling is Owner of Bay Shellfish Co.

Ernest Watling, Sr. is owner of Bay Shellfish Co., Tillson Ave., Rockland, Me., rather than manager as indicated in the July issue of NATIONAL FISHERMAN. The firm operates a certified clam shucking house with up-to-date handling facilities.

New Bedford Scallop Skippers Meet

Plans to establish a scallop captains' club met with good response at a recent organizational meeting in New Bedford, Mass. Approximately a third of the skippers in the city's scallop fleet attended the meeting. A second meeting was scheduled to draw by-laws and nominate officers. Aim of the club is to better the scallop industry in any way possible. Captains George E. Feener Jr., Leo C. Tuttle, and Martin J. Manley originated the club movement.

Safety Equipment Imperative New Bedford Fishermen Told

Prevention of costly marine accidents by installing safety equipment aboard draggers and scallopers is a must if insurance rates are to drop, Bureau of Commercial Fisheries representative John J. Murray, told New Bedford Fishermen.

Murray was in New Bedford to demonstrate selected fishing vessel safety equipment. Included in the display were inflatable life rafts, high volume dewatering pumps, Diesel operated fish hoists, pilothouse-operated main engine controls, skid resistant deck surfacings, bilge alarm and fire detection systems, boots, and head gear.

That New Bedford boat owners have come to realize the necessity of reducing vessel claims is evidenced by the number of boats with special safety devices. Of the 32 fishing vessels in New England equipped with inflatable life rafts, 15 are in New Bedford. Another type of safety equipment used in New Bedford boats is a fire detection system, developed by a retired New Bedford fire department lieutenant.

Big New Bedford Swordfish Catch

In August, the *Christine and Dan*, owned and skippered by Bjarne Larsen of Chilmark, landed the year's biggest trip of swordfish at New Bedford, Mass. The catch of 96 fish averaged 200 pounds each. The boat is highliner of the fleet with 400 swordfish landed to date.

Parisi Opens New Bedford Fillet Plant

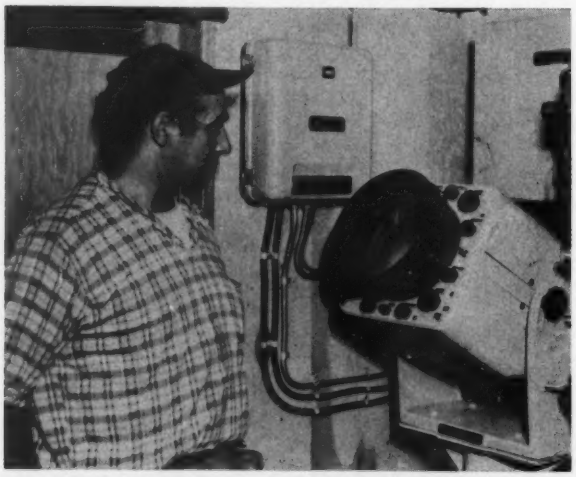
Sebastian G. Parisi, former Gloucester fisherman, has opened a fillet plant in New Bedford, Mass. The new plant, known as Quality Fillet, Inc. and employing 12, conducts filleting of haddock, cod, and flounder.

Security, Economy Reasons Given For Construction Aid

New England fishing vessels that locate fish with a simple form of sonar could be used as listening posts in search of submarines during an emergency, Senator Saltonstall told the Senate Commerce Committee recently.

Saltonstall had previously submitted to the committee a letter presenting additional data in support of the bill (sponsored by himself and Senator Kennedy) to help the fishing industry with Federal financial aid for vessel construction.

He also suggested that taking care of the fishing fleet constituted one of the more expensive services performed by the Coast Guard. The fleet has an average age of 18 to 40 years, Saltonstall continued. The Coast Guard's job would be easier with new vessels to watch which get into trouble far less frequently. Emphasizing the age of U. S. fishing vessels, he told of Department of the Interior estimates that nearly 90 percent of voyages that returned without fish caught were due to breakdowns.



Capt. Charles Parisi, co-owner of the Gloucester, Mass. dragger "Grace & Salvatore" and his new Kelvin Hughes radar, sold and installed by Louis Posner Marine Radio Equipment, Inc., Boston. The Type 14A, 60 kw. output unit has 6, 12, 24 and 48 mile range scales, as well as ½ to 3 mile variable low range; movable range marker; and new slotted wave guide scanner for high definition.

Electronic Instruments Installed

New Type 14A Kelvin Hughes radar units have been installed by Louis Posner Marine Radio Equipment, Inc., Boston, on the Gloucester draggers *Joseph & Lucia*, Capt. Joseph Brancaleone, and *Grace & Salvatore*, Capt. Charles Parisi.

A Kelvin Hughes White Line recorder has been placed aboard the Boston dragger *Manuel F. Roderick*, Capt. Vincent Gandolfi. Posner now is handling the Northern radiotelephone, and has equipped Capt. Dominic Catanzaro's 86' Boston dragger *Ethelena* with a 150-watt set.

Record New Bedford Scallop Catch

The New Bedford, Mass., scalloper, *Sippican*, arrived August 14 with 30,500 pounds of scallops as five vessels landed greater than average catches. The *Fairhaven* landed 21,500 pounds, the *Sea Ranger* and the *Newfoundland* both landed 18,000 pounds, and the *Lillian B* unloaded 15,000 pounds. While August headed for a record month as did June and July, landings of sea scallops by the end of the year were expected to be the greatest in New Bedford's history.

As production rose, prices dropped to the lowest point in nearly two years, with dockside prices bringing 44½ cents per pound.

Gloucester Landings Increase

August 1959 landings for Gloucester, Mass., totaled 20,971,700 pounds compared to 19,081,400 pounds. Ten days showed over a million pounds, the highest being the 3rd with 1,616,500 pounds and the 24th with 1,853,000 pounds.

Cape Cod Trappers Claim Boat Nuisance

Trap fishermen and operators have complained to Provincetown (Mass.) selectman that speedboats and small boats equipped with outboard motors are interfering with the trap fishing industry. Spokesman, Harry Snelling said the trap industry represents over $500,000 with the town getting a fee for each trap plus a percentage of the catch.

He said some party boats go right up to the traps and break up the schools of tuna before they can enter the traps. Other small boats go between the traps, and some have been found inside them, he said. Snelling suggested the boats be kept 500 yards from such traps and that a heavy fine be assessed for violations.

Selectman chairman, John C. Snow, advised the fishermen that anyone entering a trap can be arrested for molesting the trap and that most of the enforcement is done by the Division of Marine Fisheries. He suggested that complaints be lodged with the Division and with the Department of Natural Resources boat operating in the area. Snow also urged the trappers name a three-man committee to meet with the selectmen and a representative of the Division.

Georges Bank Haddock Catches Drop

Haddock catches on the Georges Bank dropped during the first half of 1959, according to the Bureau of Commercial Fisheries. For the first time the catch level dipped below the 10,000 pound-a-day level, when the Bureau's haddock abundance index, maintained since 1931, revealed a drop to 9,700 pounds per day. However, surveys of the banks last fall revealed good concentrations of young-of-the-year haddock of the 1958 stock. These will enter the fishery when they are two years old in 1960.

Reasons for the present decline is thought to be poor survival of young haddock from spawning in recent years because of unfavorable environmental conditions. The poor survival has resulted in a scarcity of younger 2 and 3 year olds which are sold as scrod. Catches of larger haddock have held up fairly well.

Long Island Starfish Set Light in July

Setting of starfish, which began in July, was light but continued without interruption during the month. The intensity of the set at ten stations surveyed by the Milford, Conn., Biological Laboratory ranged as low as ten per 40 oyster shells.

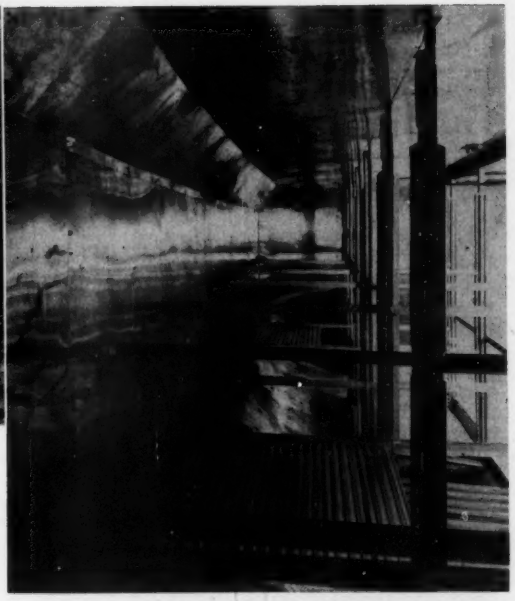
Rhode Island Quahog Shipment Seized

A roadside shipment check led conservation officers to seize six bushels of undersized quahogs from a 100-bushel truckload in East Greenwich, R. I. The seized quahogs were taken from 70 of the bags and Lt. Albert Judge, Jr., of the R. I. Fish and Game Division said every bag contained at least one quart of undersized shellfish.

Two R. I. Shellfish Areas Due to Open

Potter Cove at Prudence Island and Old Warwick Cove between Oakland Beach and Warwick Neck, R. I., which were closed to shellfishing July 13, are scheduled to reopen the first week of October. State director of health, Dr. Jeremiah A. Dailey, said the closure had been necessary due to intensive use of the coves for mooring boats and to the discharge of waste from the boats. In the future these areas will be closed from June 1 to September 30, the peak of the boating season.

Edward L. Drane, left, port captain; and Mervin Nickerson, shore engineer, of Shawmut Fisheries, Inc., Boston, Mass.



Kaiser aluminum-lined, Styrofoam-insulated fish hold in Boston trawler "William J. O'Brien".

Boston Trawler Has Insulated Aluminum-Lined Fish Hold

A major new aluminum usage which is markedly improving conditions and profits in the fishing industry is the development of aluminum hold linings and pen boards for trawlers.

First to convert to aluminum is the 130-foot Boston steel trawler *William J. O'Brien*. She is one of five vessels in the well-known O'Brien fleet, which was operated under the R. O'Brien & Company, Inc. name for many years before being changed to Shawmut Fisheries, Inc. last January.

Aluminum sheet was used to reline the 2,157 sq. ft. hold, and aluminum extrusions having a ribbed configuration were installed as pen boards during the recent renovation of the boat. All metal was supplied by Kaiser Aluminum & Chemical Sales, Inc. who also provided technical assistance.

To reline the fish hold with aluminum, the hold was stripped down to its metal hull and treated with zinc chromate. Styrofoam insulation was applied beneath the aluminum lining on the sides, under deck area and bulkheads of the hold. A 2" thickness of Styrofoam (a Dow plastic foam) in 12" x 42" boards was secured to treated wood furring.

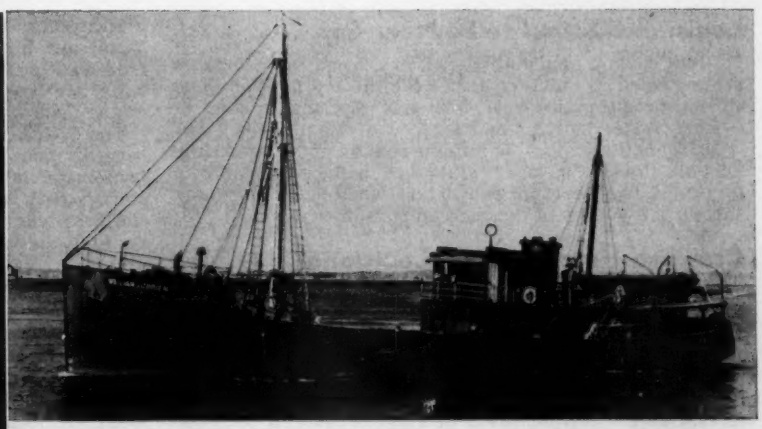
The aluminum sheets were overlapped and made water-tight with an adhesive tape. The sheets were further secured with aluminum screws to the underneath furrings.

Also installed in the *William J. O'Brien* was a new walk-in refrigerator for the galley. It is completely sheathed on the inside with Kaiser special alloy 502-H38, .072 gauge aluminum. Shelving is of aluminum and the heavy duty cooler door is aluminum clad.

The refrigerator is insulated with a 4" thickness of Styrofoam. Mechanical refrigeration is provided by a ½ hp. Brunner condensing unit, U.C.-35 Bush cooler and necessary automatic controls. The compressor is mounted overhead in the companionway. The evaporator equipment in the new installation requires only ¼ of the space used by the ice bunker of the old refrigerator.

The insulating and sheathing work and new refrigerator in the *William J. O'Brien* were designed, engineered and installed by Allied Cork, Inc. of Walpole, Mass. An approved Styrofoam contractor, the concern is headed by A. J. Mathis, president, with James T. Allen in charge of designing.

(Continued on page 24)



Boston trawler "William J. O'Brien" which has been fitted with aluminum-lined fish hold with Styrofoam insulation. Left, aluminum pen boards in trawler "Weymouth".

GULF OF MEXICO

Shrimp Import Bills Offered By Louisiana Representatives

Louisiana Representatives E. E. Willis and T. A. Thompson have introduced three bills in the House recently, and other bills have been submitted by representatives from the Gulf and Pacific coast states. The bills are designed to provide a five-year orderly import quota on shrimp. If passed they would impose a 25 percent duty on shrimp brought into the country above the quota. The bills have the support of individual shrimpers, the Twin City Cooperative, the Louisana and Texas Shrimp Associations, and the National Shrimp Congress.

H. R. Robinson of Westwego, Louisiana, chairman of the Gulf Shrimp Canning industry, said shrimp imported from other countries represented only five percent of the U. S. market in 1958, but could be higher this year.

Robinson said imports represent a danger to the industry to the extent tha "we can see the potential of imports for the future." Legislation for orderly control of imports is being drafted for introduction in the next session of Congress, was described by Robinson.

Robinson emphasized the U. S. apparently has reached its maximum shrimp yield with production last year at 120 million pounds. He continued that canners are seeking regulations to safeguard against unstable conditions that might be caused by uncontrolled imports.

Louisiana Fleet Blessings Held

The ninth annual Iberia Shrimp Festival was held in Delcambre, Louisiana, last month, highlighted by the blessing of the shrimp fleet and prayers for bountiful catches and safe voyages. Festivities were officially begun with a skiing exhibition and a dance where Queen Phyliss LeBlanc made her first appearance. A mammoth shrimp boil was another of the attractions, which included boat races and a fais-do-do held on special areas of the Delcambre Canal. More than 1,500 persons danced to the old-time Cajun music.

The annual blessing of the Lafitte shrimp fleet also took place last month on Bayou Barataria. Rev. Paul Daigle officiated at the ceremony. Clem Perrin, Jr., reigned as King Jean Lafitte VII with Mrs. William Schurb as his queen. The special mass and fleet blessing were followed by a dinner and ball.

Thundershowers dampened the ninth consecutive blessing of the Violet shrimp fleet. A king and queen were chosen and a dance climaxed the activities.

Louisiana Output to be Near Top

Great shrimp availability and an advertising campaign are expected to put Louisiana near the top as a national shrimp producer this year, James N. McConnell, chief of oysters, water bottoms and seafood division predicted.

McConnell said that 80 million pounds of white shrimp (double the size of last year's crop) will be available to fishermen this year. He added that whether or not many shrimp are marketed depends on consumer demands.

Crawfish Hatcheries for Louisiana

Plans to set up pilot crawfish hatcheries near Henderson, Louisiana, were discussed recently by a committee from St. Martin Parish, speaker of the House Robert Angelle, and Percy Viosca, Jr., state biologist. Through the hatcheries, Viosca intends to study the life cycle of the crawfish to determine the feasibility of raising them in captivity.

An investigation, this year, revealed that both crabs and crawfish are scarce. Viosca listed several factors which have caused the decline, including unseasonably wet summer, spraying poisons to eradicate water hyacinth, oil field wastes, and cold water from this spring's late blizzards.

Inland Texas Bays Opened to Shrimping

According to the new law recently passed by the Texas Legislature, all inland bays of the state were opened to commercial shrimping August 15. However, executive secretary Dodgen of the Game and Fish Commission appealed to shrimpers to abstain from trawling at least until September 1, because of the small shrimp sizes.

Tests conducted by the Commission previous to the opening date showed shrimp were undersize with 70 percent white averaging 4 inches in one area and 3½ inches in another. Dodgen warned that when taken and graded there could be a tremendous loss affecting the entire crop and causing harm to next year's crop.

Fish Plant Approved For Sabine Pass

Jefferson County Commissioners Court approved building a new menhaden fish processing plant in Sabine Pass, Texas, recently. Petition for the approval was submitted by Lone Star Fish Byproducts, Inc. Officials of the company say the plant will manufacture fish oil, solubles, and scraps. However, construction of the plant must now be approved by the Texas Game and Fish Commission.

New Seafood Company in Aransas Pass

A new seafoods company, Webster-Robert, Seafoods, Inc., has opened business at the location formerly occupied by Casey's Seafoods at Conn Brown Harbor in Aransas Pass, Texas. Heading the company is Eugeue M. Webster, president, who will act as shrimp and sales manager. C. O. (Chick) Robert, vice president, will manage plant operations.

Robert, a local shrimper, has built a wide reputation in seafood circles. He is now serving his second term as president of the Aransas Pass Shrimp Association. Webster operated a seafoods company in Aransas Pass before the new company was organized. He is a member of the Board of Directors of both the Texas Shrimp Association and the Shrimp Association of the Americas. The company is processing seafoods from 50 trawlers.

Baffin Bay Bait Bill Signed in Texas

The Baffin Bay Bait Shrimp Bill has been signed by Texas Governor Daniel and is now operative. The Bill permits shrimp to be taken with 10-foot trawls in Kleberg and Kennedy counties and sold for bait only, within those counties. It does not allow shrimp to be taken from Laguna Madre, which is closed to all shrimping

Hurricane Strikes Texas Coast

Hurricane Debra struck the upper middle coast of Texas and brought heavy damage to the shrimping fleet from Freeport to Port Arthur. A number of trawlers were sunk and many were damaged although a large section of the fleet was working in an area offering good refuge.

The Weather Bureau's hurricane reporting service was severely censored by fishing boat and shore installation owners for late, mixed-up, and conflicting reports of the storm's path and location. Conn Brown Harbor at Aransas Pass was jammed to capacity, but no storm damage resulted there.

Channel Aids Texas Fishing

The opening of the channel from the Gulf to Laguna Madre at Port Mansfield, Texas, was directly responsible for improved fishing conditions, according to Charles R. Johnson, port director. During 1957, before the opening of the pass, 150,000 pounds of food fishes were taken, while in 1958 after the opening, 300,000 pounds were harvested by commercial fishermen as well as 300,000 pounds by sportsmen.

Fall Shell Planting in Alabama

The Sea Food Division has scheduled a fall oyster shell planting for Alabama, Division chief George Allen said. Fall spawn is not as large in volume as the spring spawn, but the chance of survival for spat is much better in the fall. During that period the water is cooling, there is more food, and natural enemies are not as active. If the fall planting results are good, Allen said, the experiment may lead to further programs of shell plantings at different times of the year to catch the spawn and produce oysters.

Open Alabama Shrimp Areas

Some areas of Alabama waters in Mississippi Sound and Mobile Bay have been opened to daytime shrimping. George Allen, chief, Alabama Sea Food Division, said all waters of Mobile Bay south of a line running from Arlington Docks to Daphne will be open from 6 a.m. to 6 p.m.

Waters in Mississippi Sound will be open during the same hours, except those waters east of Dauphin Island woods to Dauphin Island range beacon northwest to Barron Point. Allen said checks showed white shrimp appearing in the area in large quantity and size. He said the fishermen might as well catch them while they are in the area, but emphasized that the count of 50 or fewer per pound will be strictly enforced.

Alabama Oyster Bed Study Okayed

A $100,000 appropriation to improve Alabama oyster beds can be used to pay for biological studies, Attorney General MacDonald Gallion ruled in a recent advisory opinion. The State Conservation Department proposes to enter into a contract with the University of Alabama and the Gulf Coast Research Laboratory for special research to study the state's present beds and recommend ways to improve them.

Gallion said technical advice and research were necessary to such a project. The Legislature appropriated the $100,000 to be used during the 1959-60 fiscal year for improving publicly owned oyster beds. If the conservation director decides that biological research is the best means by which the public beds can be improved, Gallion said, then he can use the funds set up by the Legislature to pay for it.

New Bayou La Batre Fish-Meal Plant

Reports show that three large companies are interested in locating a fish-meal processing plant in Bayou La Batre, Alabama. The plant would cost an estimated $150,000 and would produce meal from the whole fish.

According to a local shipyard operator, Oliver Bryant, there are 76 large boats in the area which will carry 20 tons and more. He said there are 115 smaller boats whose owners are interested in trash fishing. About 81 percent of the boats are locally owned.

Bryant said Bayou La Batre is the largest fishing port in the North Gulf with no fish processing plant of that type. He estimated that 60 percent of the trash fish processed in plants in Pascagoula are caught off the Alabama coast.

Bayou La Batre Fleet Blessing Held

More than 3,000 persons watching the 100 boats on parade, heard Father James Howard of Mobile deliver the sermon for the 10th annual Bayou La Batre, Alabama, shrimp fleet blessing. Immediately following the service the actual blessing of the individual boats was performed aboard the *Innisfree*.

At the same time, four judges noted the decorations of the passing boats. For the second year in a row, the *Ling*, captained by Auggie Hill, won first place. Coming in second was the *Gold Nugget*, captain Jerry Foster, while the *Clora R.*, captain Leroy Ryan, Jr., placed third.

Alabama to Chart Artificial Fish Banks

The Alabama Sea Food Division has begun a project to chart a number of artificial fishing banks in the Gulf formed by dumped, wrecked auto bodies. George Allen, Division chief, said he has received requests from the Bayou La Batre Chamber of Commerce to mark the areas where the wrecks are dumped. Fishermen have been snagging nets on the cars. He hopes to have the charts of the snapper banks ready within a month.

Mississippi Would Mark Boundary Water

The Mississippi Seafood Commission at a recent meeting discussed a plan to work with Alabama in establishing a boundary line dividing the water of the two states by the use of a buoy. Commissioners said the buoy, two miles west of the line, would be an easily determined boundary, enabling the Commission to enforce laws near the state line.

"Sammy H", 62-foot shrimper was built for Sam D. Hughston, Jr., by Diesel Engine Sales, Inc., St. Augustine, Fla. She is powered with a 6-71 General Motors Diesel turning a 46 x 38 4-blade Federal propeller. Other equipment includes a Walter Clean-Flo keel cooler, Yocam batteries, and a 515½T Stroudsburg hoist.

Research Ship Returns to Pascagoula

The *George M. Bowers*, Fish and Wildlife Service research vessel, returned to Pascagoula, Miss., recently after completing the second in a series of cruises to obtain underwater motion picture records of shrimp trawl performances.

Comparisons were made of chain and bracket doors, various amounts of chain on the foot rope, various head rope flotation devices, and different bridle lengths. Comparisons were made at varying speeds. A 40-foot semi-ballon trawl was photographed with some changes noted, including operation with and without a tickler chain.

Seven Month Gulf Landings

Landings of seafoods at Gulf ports for the first seven months of 1959 show an increase over landings of the same period in 1958. Oysters gained ten percent with a take of 344,614 barrels, while edible finfish with a 5.3 million pound increase rose nine percent over the previous year. Headsoff shrimp at 42.4 million pounds showed a two percent gain. Blue crabs reached the 5.9 million pound mark, but registered a decrease of two percent.

SOUTH ATLANTIC

Byrd Plans Reorganization of Maryland Commission

Dr. H. C. Byrd recently announced plans for extensive reorganization of Maryland's Tidewater Fisheries Commission, putting it back under the full time administration of a fisheries commission chairman and creating new functions for the agency.

Administration of fisheries would be only one of many functions of the department Byrd described to a Legislative Council. Among other things, it would conduct research and educational programs, teach housewives how seafood should be prepared, regulate the use of power boats, and assist private recreational development.

The plan calls for subdividing the department into eight units, each with its own director. They would be known as the divisions of business and finance, development and research, engineering, markets, recreation, public relations, law, and law enforcement.

The markets division would work in cooperation with the Federal Government in locating new seafood markets, would promote the sale of seafood products, and through a home economics section would show housewives how to use the bay's products. Byrd, said the unit would also conduct the first survey in the state's history of the seafood industry. It would include the number and income of people employed, how they live, etc.

The development and research division would prepare extensive education programs on clam and oyster management, finfish and crab management, and control of water chestnut, weeds, and grass. It would also conduct research.

The engineering division would conduct the first resurvey of Maryland Oyster bays since 1902 and 1912. Little change is contemplated in the Law Enforcement Division, presently consisting of a chief fisheries inspector and six law enforcement districts of the bay and tributaries. Byrd said there would be emphasis placed on the dealing of law officers with the public.

The divisions of business and finance, public relations, and law would handle administrative matters within the department.

Byrd plans to continue serving as administrative head of the department on an "Acting" basis until the 1960 Legislature can be asked to reorganize the Commission. When creating the present five-man group, the Legislature split into separate jobs the positions of Commission chairman and department director. Byrd feels recombining the positions is necessary for better management and administration.

Byrd also said the Commission has sufficient funds on hand to begin some reorganization immediately, and part of the change will be self-sustaining. He said other funds will be requested in the next budget to be submitted to the Legislature.

New Maryland Fish Lab Planned

A contract has been awarded for a $150,000 Federal biological research laboratory at Oxford, Maryland, and the facility should be in operation by next summer. The lab will eventually have facilities for studying cultivation of oysters and clams in artificial ponds and tanks, with a view toward developing higher concentration of seed for transplanting in the Chesapeake Bay or its tributaries.

The new laboratory will replace the present installation at Annapolis. The current project under study is the oyster disease which struck the Delaware Bay and has appeared in Chincoteague and Sinexpuxent bays. The present staff of ten will be enlarged to 15 when the move is made.

Fisheries Laboratory Branch Installed at Gloucester Point

Demands for increased marine research have resulted in the re-establishment of a branch of the Virginia Fisheries Laboratory of Gloucester Point, Va., at Wachapreague on the Eastern Shore. H. D. Hoese, formerly of the Fish and Game Commission of Texas, is the marine biologist in residence. In cooperation with Dr. J. D. Andrews, chief oyster biologist for the lab, Hoese will be engaged in collecting information on setting, growth, and mortalities of oysters.

Discussing the new station, Dr. William J. Hargis, Jr., Laboratory director, said, "The Eastern Shore is such a different ecological region from the Western Shore, and the problems of the oyster industry and other fisheries are so different, that scientists from the laboratory have long been aware that greater effort should be expended in studying the problems at the scene."

The station will service the entire Virginia Eastern Shore, and its research will be coordinated with that of the Fish and Wildlife Service Laboratory at Franklin City, and the Maryland field station at Public Landing, Md.

Maryland Oyster Set Best in Years

The 1959 set of baby oysters in lower Maryland waters promises to be much better than in recent years, according to reports from the Chesapeake Biological Laboratory. The count of young spat on test shells in St. Mary's River is ten times what it was last year. The Barren Island area, on the Eastern Shore across from Solomons, is producing four times as much.

These areas along with Eastern Bay and Holland Straits bars are the primary sources of seed oysters used in rebuilding the Chesapeake's oyster bottoms. The set in Holland Straits is running about the same as last year, although the spawning season is not over. Honga River is showing no change, the reports say.

Maryland Clammers End Strike

A group of clammers operating out of Grasonville, Md., ended their three day strike when none of their demands were granted. About 120 boats were involved. The owners notified packer Fletcher Franks, Fletcher Franks Packing Co. of Easton, that they were going to strike unless he recognized a Baltimore union as their bargaining agent. The clammers also wanted a price of five dollars a bushel while the current price had been $3.50 per bushel. The strike did not affect clammers in other areas.

Tidewater Commission to Ask Full Power in Maryland

Dr. H. C. Byrd recently announced that the Maryland Tidewater Fisheries Commission will ask the 1960 Legislature to erase all fishery regulations from the law books and give full power to make the rules to the Commission. The Commission is now limited to making regulations within the framework of statutes written by the Legislature.

Commission chairman Byrd said many of the laws regulating the oyster, clam, crab, and finfish industry in Maryland are antiquated. Both packers and watermen have been hurt by laws that are difficult to interpret and equally difficult to enforce. He said the fishery situation varies a great deal from county to county, making it necessary to have unlike regulations in each area.

If the Commission had a free hand to make the rules, with the effect of the law, Byrd said, they could be altered as conditions change, rather than waiting for Legislative action. The Commission has been meeting with watermen in different sections of the state to discuss local problems.

The S. T. Tringali Shrimp Co., Tampa, Fla. owns the 67-foot shrimper "Big Daddy", built by Diesel Engine Sales, Inc., St. Augustine, Fla. She is powered with 150 hp., D-342 Caterpillar Diesel turning a 50 x 34 4-blade Columbian propeller on a 3-inch Tobin Bronze shaft. Other equipment includes Ritchie Globe Master compass, 1500 watt Petter light plant with Winpower generator.

Potomac Patent Tonging Planned By Maryland

A legislative committee recently endorsed proposals opening the Potomac River to patent tonging for oysters and permitting state regulation of power boats. The recommendations were made by the Tidewater Fisheries Commission at a meeting with the Fisheries and Waterways Committee of the Legislative Council.

Commission Chairman Byrd feels that southern Maryland opposition can be overcome if it is explained to watermen, there, that patent tonging will be strictly controlled by the Commission.

The bill to be drawn would give the Tidewater Commission powers to determine what areas of the Potomac patent tongs may be used in, limit the tongs to four feet in width and 200 pounds in weight, and permit the Commission to specify time periods for their use.

Regarding the power boat regulations, the Commission is drawing up a bill which proposes a license fee for the first three-year period the law would be in effect, instead of the flat ten dollars annually proposed last year. The bill also contemplates using the funds for harbor improvements, boat ramps, etc., rather than letting the money go into the State's general fund.

Maryland, Virginia Meetings Readied

Plans are being made for two meetings between Maryland and Virginia groups to discuss mutual fishery problems. Dr. H. C. Byrd, chairman, Tidewater Fisheries Commission, expects to meet the Virginia Commission of fisheries within the month. He announced that the two state's representatives on the Atlantic States Marine Fisheries Compact, plan to hold a joint session before the Compact's annual convention September 21-23.

Croaker, Spot Catch Rising

The Fall run of Virginia pound net croakers and ocean view spots is underway, with production better than last year. The volume of the catch now is steadily increasing for these species, and will hit its peak in October. According to Issac Fass, Inc., Portsmouth, Va. Fall croaker and spot are considered two of the area's choicest products.

New Head For Conservation Board

North Carolina representative D. G. Bell of Carteret has been sworn in as chairman and member of the Commercial Fisheries Committee of the State Board of Conservation and Development. He was appointed by Governor Hodges to succeed Cecil Morris who resigned.

Hampton Roads Dragger Landings Rise

Hampton Roads, Va., dragger landings for August '59 totaled 192,000 pounds compared with 58,800 pounds for the same month in 1958. The increase resulted from rises in fluke, 109,100 pounds; sea bass, 800 pounds; and butterfish 9200 pounds. The pound net fishery showed a decline from 1,234,700 pounds in August 1958 to 537,500 pounds in August of this year.

Warn of Air Hazards to Trawling

Civilian officials in the Morehead City, N. C., area recently pointed out, with the menhaden season beginning, unless steps are taken, there is danger of more mid-air collisions such as the one which killed a fish spotter pilot last month.

W. H. Potter, mayor of Beaufort, proposed an immediate meeting of civilian and military officials. He said a system of flight plans and air corridors should be set up to avert the danger. Potter, also manager of Beaufort Fisheries, said the menhaden season means 15 or 20 planes being used to spot fish. He added that he wants protection not only for flyers but also for areas which would be endangered by falling aircraft.

Waters of South Atlantic To Be Explored For New Fish

Exploration of waters along the South Atlantic coast was scheduled to begin August 31, in efforts to discover new fishing grounds and new commercially profitable fish. Seton H. Thompson, regional director, Bureau of Commercial Fisheries, St. Petersburg, Florida, stated the major exploration will cover waters from Cape Hatteras, N. C. to Cape Canaveral, Fla.

He said the project had been allotted $150,000 for this year under the Saltonstall-Kennedy act. It has been endorsed for several years by the Atlantic States Marine Fisheries Commission.

Florida Harbor Improvement Bill Approved By House

A bill authorizing harbor improvements at Fort Myers Beach, Naples, and Everglades, Florida, was recently passed by the House and sent to the Senate for early action in Washington. Passage of the bill which provides congressional authorization for the projects will make it possible to seek appropriations to carry out the work. This would probably be done during the next session. The projects have been pending for three years.

The Fort Myers Beach improvement calls for a channel 12 feet deep and 150 feet wide in San Carlos Bay to Matanzas Pass thence 11 feet deep and 125 feet wide through the Pass and to the shrimp docks. The Federal Government would provide $165,800 for the work and the local interests would put up $4,900.

At Naples a channel 12 feet deep and 150 feet wide is planned from the Gulf to Gordon's Pass, 10 feet deep and 100 feet wide through the pass to Upper Naples Bay to a point 400 feet from the Tamiami Trail Bridge, and 10 feet deep and 70 feet wide up to the bridge. This would include turning basins in the bay and at the municipal yacht basin. The cost here would be $207,200 to the Federal Government and $140,200 to local interests.

The Everglades project calls for a channel 8 feet deep and 60 feet wide from the Gulf up to Barron's River for one and one half miles. It would cost the Federal Government $117,200 and local interest $24,600.

Florida Lobster Season Opens

The closed season on Florida spiny lobsters was reopened on the first of August. The State Board of Conservation said fishermen may return their stocked traps to the water if they have a permit. Last year the board issued over 600 permits for nearly 80,000 traps. There is no charge for the permits as they are simply a method to control illegal trapping.

Department director Ernest Mitts said the market for Florida's lobster has increased steadily for the past several years. Last year over 4,000,000 pounds were taken, valued at $1,250,000.

Apalachicola Shrimping Banned

Apalachicola shrimpers had to curtail their daylight operations in Apalachicola Bay, St. Vincent's Sound, and St. George's Sound last month after a ruling by Ernest Mitts of the Florida Conservation Department. Samples taken by the department showed shrimp were undersized. The ban was scheduled to remain in effect until mid-September. Under a special act of the Legislature, passed this year, the State Conservation Department can prohibit shrimping.

New England Clams Thrive In Florida

Hardshell clams have been grown three times faster in the Florida Gulf than in native New England waters, according to a report of Dr. R. W. Menzel, Florida State University marine biologist at the Oceanographic Institute. He states that clams matured in 16 months in warm Gulf waters during experiments. They would have needed four to five years to reach half shell size, or two inches, in New England, he said. The clams were sent to Florida from the Bureau of Commercial Fisheries Biological Laboratory at Milford, Conn.

Florida Governor Vetos Shrimp Law

A Collier County, Florida, act, which would exempt boats operating out of that county from the Tortugas shrimp bed law, was vetoed by Governor Collins. He stated the bill would contribute to the undermining of the shrimp industry and would result in discrimination against the majority of Florida shrimpers.

PACIFIC COAST

Washington Salmon Return To University Laboratory

Dr. Lauren R. Donaldson of the University of Washington said recently that over a ten year period he has established runs of choice chinook salmon that migrate to the high seas and return in quantity to his laboratory. Donaldson, a professor of fisheries and director of the University's Laboratory of Radiation Biology, said that it is a major breakthrough in an effort to establish fish farms for producing unlimited numbers of salmon.

The Washington Fisheries Department has received 100,000 of Donaldson's "surplus" fingerlings for planting in the state's new fish farms. By 1961, some 10,000,000 excess chinook eggs will be available for the Department, he predicts. It has been a team operation with Milo Moore, state fisheries director, he said.

The project began in 1949 when 40,000 fingerlings were released in Portage Bay. Three years later, 42 of the marked salmon returned—a recovery of one tenth of one percent. Last November, 440 of 26,240 chinooks that had been released in the spring of 1956 returned. The usual cycle for chinooks is four years, but due to selective breeding, the 1958 returns were three year-old adults averaging more than 18 pounds each—larger than full-grown four-year-olds. Donaldson expects more of the 1956 group to return this fall. The return last fall included 168 females which produced 650,000 eggs.

Sudden Appearance of Salmon Run Surprises Washington Fishermen

Salmon hit the Strait of Juan de Fuca and San Juan Islands, one day last month, surprising American and Canadian fishermen with 700,000 fish, mostly pinks. This year's pink-salmon run, which heretofore appeared dismal to commercial fishermen and fishery officials, arrived suddenly in unexpected numbers.

American fishermen in inside waters caught more than 300,000 pinks and an estimated 75,000 to 100,000 sockeye. Canadians caught 210,000 pinks and approximately 40,000 sockeye. Consequently, the International Pacific Salmon Commission, meeting in British Columbia, granted two extra days of fishing in convention waters.

Russian Fishing Industry Study By Washington Men

Three Seattle, Washington, fisheries experts have arrived in Russia for exchanges of technical information with Russian scientists. The men are Clarence F. Pautzke, assistant director, State Fisheries Department; Clinton E. Atkinson, chief, Pacific Salmon investigations for the Fish and Wildlife Service; and W. C. Arnold, managing director, Alaska Salmon Industry, Inc.

The trio will observe the fisheries, chiefly salmon, on the Pacific coast of Siberia and exchange with Russian scientists information on research activities of mutual interest to both countries. The purpose of the trip is to create better understanding of the mutual fisheries problems. The trip will last for one month.

Atkinson has headed the salmon research of the Seattle Biological Laboratory (formerly Pacific Salmon Investigations) since 1952. Pautzke is known for his recent salmon work as administrator with the Washington State Department of Fisheries.

Pacific Coast Oyster Growers Association Hold 13th Annual Convention in Seattle

At the 13th annual convention held in the Benjamin Franklin Hotel, Seattle, Washington, August 26-28, the Pacific Coast Oyster Growers Association elected Earl R. Brenner of Olympia, Wash., to succeed Edward J. Gruble as president. Stanley G. Gillies of South Bend, Wash., was elected vice-president, and Charles R. Pollock of Seattle was re-elected for his 23rd year as secretary-treasurer. The convention featured speeches and round-table discussions on research, marketing, pollution, food and drug regulations.

Trustees elected at the end of the convention were Stanley C. Gillies, Stony Point Oyster Co., South Bend; Lee J. Wiegardt, Wiegardt Brothers, Ocean Park, Wash.; R. N. Steel, Rock Point Oyster Co., Blanchard, Wash.; R. H. Bailey, Pioneer Oyster Co., Seattle; and Earl R. Brenner, J. J. Brenner Oyster Co., Olympia.

New officers of the Pacific Coast Oyster Growers Association elected at the organization's 13th annual convention last month. Left to right: R. N. Steele, trustee; Charles R. Pollock, secretary-treasurer; Earl R. Brenner, president; R. H. Bailey trustee; Stanley C. Gillies, vice-president.

Pacific Sockeye Salmon Run Could Set Off Cycle Record

With more than 800,000 sockeye caught by American fishermen as of the last week in August, 1959 promises to be a record off-year sockeye run, Lloyd A. Royal, director, International Pacific Salmon Fisheries Commission said. Commission chairman, Thomas Reid said, "Fraser River sockeye runs this year are fulfilling the most optimistic preseason estimates for good survival." Royal said the catch to date is a record for an off-cycle year.

The 4,000 or more salmon due back in the fall of 1961 will produce 15,000,000 eggs. Donaldson plans to keep 500,000 and from that number select the best 250,000 for release. He plans to keep that system going until he can take 15,000,000 eggs as seed stock each year. The excess 10,000,000 eggs from the 1961 run will be made available to the State Fisheries Department.

Seattle Man at Territorial Limits Meeting

Harold E. Lokken of Seattle, Washington, was a spokesman for the American fisheries industry, meeting with Secretary of the Interior, Fred A. Seaton, in Washington, D. C., recently, to discuss territorial off-shore limits. The limits will be considered at a conference on law of the sea at Geneva, Switzerland, in April. Lokken is business manager of the Fishing Vessel Owners' Association in Seattle.

Proposes Fishery Talks With Japan

Interior Secretary Seaton disclosed recently that he made a proposal for a government-to-government meeting to Japanese officials during a recent visit to Tokyo. Seaton said his talks dealt primarily with tuna, but that he also met with leaders of the salmon industry.

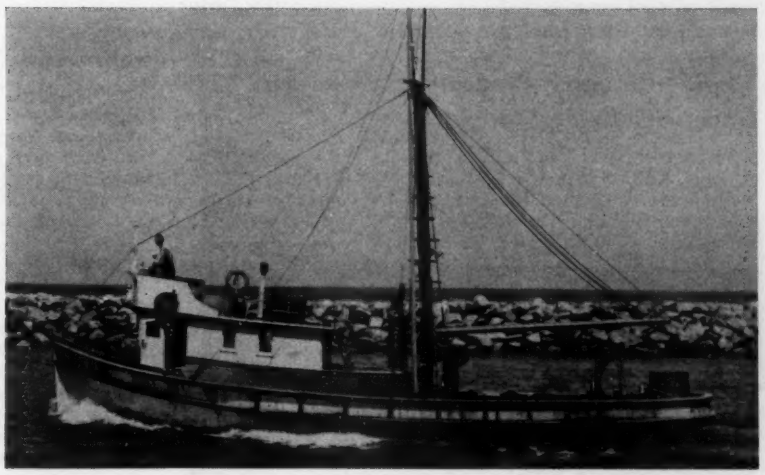
He said he went thoroughly into the subject of the meetings on technical aspects of fishing on the high seas. Subjects would deal with marine biology, studies of taking fish—where, when, how—with an eye to cost; the methods of taking, processing, and merchandising. Seaton added that talks with the Japanese concerning areas from which they would not fish are slated for September.

Russian Fishing Operations Described by Washington Man

Fisheries expansion in Russia is planned like a military operation, Washington Senator Warren G. Magnuson told a Senate Interstate Commerce Committee hearing on a bill to assist American fishermen in constructing fishing craft. A motion picture of a giant Soviet trawler fishing off Newfoundland was shown at the hearing.

Magnuson, chairman of the committee, said Russia has 30 such ships of 2,500 tons or larger. The Soviet seven-year plan calls for 12 more, with the newer vessels displacing 3,500 tons—ten times that of our largest he added.

The Soviet fleet consists of large fast stern trawlers, completely mechanized with underdeck fish conveyors, quick-freeze equipment, and refrigerated storage space for 2,000,000 pounds of frozen fish fillets Magnuson said.



The 50 foot "Anna Alma", Captain Freeman Arbo, Moss Landing, Calif., is powered with an Atlas 65 hp. engine with direct drive and fishes albacore during the summer and halibut in the winter.

They are operating in the North Atlantic and Alaskan waters.

The film showed the Russian vessel taking in an estimated 75,000 pounds of ocean perch on each haul. "One of our trawlers would be lucky to catch that much in two weeks, said H. S. Trilling of Boston, Mass., president of the New England Committee for Aid to Fisheries, who obtained the film on a trip to Europe.

These ships are not only fishing, Trilling testified, they are also charting the ocean bottoms and gathering other information. On every Soviet trawler there are scientists. Trilling said that in addition to the refrigerator stern trawlers, which the Russians call floating fish combines, they are constructing mother ships of more than 12,000 tons. Magnuson added the American fleet has no stern trawlers, no refrigerator ships, and no mother ships. The average age of the American side trawlers is about 22 years, he said.

Seattle Halibut Landings Increase

Seattle, Wash., Halibut fleet landings for August 1959 amounted to 3,225,900 pounds for a rise of 212,700 pounds over the previous month and 1,318,600 pounds over August 1958. The rise was due mainly to increases of 1,118,600 pounds in halibut, 14,700 pounds in rockfish, and 180,600 pounds in sablefish. August otter trawl landings were down 288,200 pounds from August of last year.

New Washington Fish Farm Opens

Expansion of Washington's fish farming program with the establishment of the first salmon farm east of the Cascade Mountains in Easton, was announced recently by Governor Albert D. Rosellini. He said fisheries officials are planting 20,000 spring chinook fingerlings from the Klickitat River Hatchery.

Screens have been built to hold the young salmon until they reach migratory size and begin their journey down the Yakima and Columbia rivers to the sea.

Nearly seven million salmon have been released from the Fisheries Department's 20 farms. The purpose of the program is to rear salmon to supplement the output of the state's hatcheries and to restore salmon to their former abundance.

Suggest Chemicals Against Dogfish

The use of chemical repellents or selective poisons for the control of dogfish shark has been suggested by Washington Congressman, Jack Westland. He has offered a bill which would permit the Secretary of the Interior to investigate methods of eradicating the predatory shark. The bill also calls for experimentation with repellents and poisons.

The use of repellents to reduce fishing gear damage is a new approach to the problem, Westland said. Scientific research is needed to find a poison that will kill dogfish but will not affect other fish or marine life.

Marine Research Program for Alaska University Being Studied

Fishery experts, oceanographers, and educators met in Juneau, Alaska, recently to report on a proposed fishery and marine-research program for the University of Alaska. The group included Dr. William F. Royce, director of the University of Washington Fisheries Research Institute. The report will be presented to the Alaskan Legislature in January.

Dr. Ernest N. Patty, president of the Alaskan organization said the proposed institute of fisheries and marine science will operate as a branch of the state university. A degree in fisheries will be offered. Eventually there will be several research stations.

Patty said the institute will offer specialized marine studies as the equivalent of a senior year of college work. Students will take the first three years at the University of Alaska near Fairbanks. He said the school will cooperate closely with the Alaska Fish and Game Department and the U. S. Fish and Wildlife Service.

The school is expected to have a biological station and a boat for ocean studies. Besides Juneau, the committee is considering Auke Bay and Douglas as a site for the institution.

California Calls For Pollution Control

Californa Fish and Game director, William E. Warne, has called for a water pollution control policy that is applicable from the Oregon border to the Mexican border. He voiced high hopes that this will be possible following the recent action of the State Water Pollution Control Board in naming a committee to frame a pollution control policy.

The three-man committee headed by DeWitt Nelson, director Department of Natural Resources, was formed following a motion by Warne at a recent State Board meeting. With Nelson on the committee are Paul Beerman of San Diego, and G. Kelton Steele of Eureka.

Prices Drop During Best Albacore Season

In the middle of one of the best albacore seasons in years, for commercial fishermen, prices were cut from $385 to $350 a ton in Monterey and Moss Landing, California. Fishermen, resigned to the lower prices, were then advised that no more fish would be accepted by canneries until further notice. Cannery workers were scheduled to strike September 1 for fringe benefits. A rush was made to San Pedro where $50 a ton more was offered for the catches.

San Diego Tieup Continues

Sixty vessels of the San Diego, California, tuna fleet are now at sea, representing one of the smallest numbers of bait boats operating at any one time since before World War II. About fifty boats are idle at local docks as owners refuse to sign letters of agreement demanded by union fishermen and engineers.

The letters of agreement state that owners will pay crews on the basis of $270 dollars a ton for yellowfin tuna and $230 a ton for skipjack. Fish has been selling considerably lower than those levels for several months, with owners making up the difference out of their own pockets.

A break came in early August when the National Marine Corporation agreed to the union minimums and sailed its fleet of 15 boats. Since then another 30 owners have signed the letters of agreement and sailed.

The American Tunaboat Association, representing most of the San Diego bait boats has stated its opposition to the union demands, believing the minimum prices are unrealistic in view of the price competition from Japanese imports.

Preliminary Tuna Talks Held With Japan

Preliminary Japan-U.S. tuna talks began last month. The Americans desire to hold an intergovernmental conference in Washington in September with 10 delegates from each side. Japan prefers to set up a tuna regulatory council and is striving unilaterally for stabilization of the American market, so that intergovernmental negotiations are inappropriate.

Food Conventions Feature Fish

During August and September, California is host to three national food conventions, at which the Bureau of Commercial Fisheries has been invited to present educational exhibits for each type of food service represented. Thousands of persons attending the conventions will be exposed to all types of advertising and promotion, the Bureau's efforts designed to supplement the fishing industry promotion programs.

EQUIPMENT and SUPPLY NEWS

Hubbs GM Servicemen Recognized

Thirteen members of the General Motors Diesel service staff of Hubbs Engine Company's Boston shop, its Portland, Me. branch and New England dealers, were honored at a dinner last month in Boston, after qualifying for membership in the GM Detroit Diesel Service Craftsman Guild.

The Guild is a National organization established by Detroit Diesel Engine Division, General Motors Corp. to recognize and encourage expert workmanship in the proper servicing and maintenance of GM Diesel engines. Rigorous examinations were conducted by field service engineers of GM Diesel's New York Regional Office.

Awards were made by J. P. Miles, GM Regional Service Manager, who also presented a Guild membership plaque to R. W. Hubbs, president, and W. J. Lemieux, service manager, of Hubbs Engine Co.

Similar awards were presented to various Hubbs dealers, including M. A. Healy, Eastport, Me.; Cape Cod Marine Service Inc., Falmouth, Mass.; D. N. Kelley & Son, Inc., Fairhaven, Mass.; Point Judith Engine & Supply Co., Point Judith, R. I.; Southwest Boat Corp., Southwest Harbor, Me.; Flyers Boat Yard, Provincetown, Mass.

Representing GM Diesel at the dinner in addition to Mr. Miles, were; C. B. Clum, general service manager of Detroit Diesel, L. A. Steele, manager of the New York Region, R. D. Dresher, zone sales manager, and A. H. Andresen, zone service engineer.

General Motors Diesel Service Craftsman Guild plaque being presented to Hubbs Engine Co. officials, Boston, Mass. Left to right, W. J. Lemieux, service manager, and R. W. Hubbs, president, Hubbs Engine; L. A. Steele, New York Regional manager; C. B. Clum, general service manager; J. P. Miles, N. Y. Regional service manager, GM, Detroit Diesel Engine Division.

New Spray Starting Fluid Package

Spray Products Corp., Camden 1, N. J., has announced that Spray Starting Fluid for Diesel and gasoline engines is being packaged in a newly designed white container with orange lettering. The 'balky donkey' trade mark will be in orange to make it more noticeable and more readily identify the new Spray Starting Fluid package.

Spray Starting fluid comes in a pressurized can that can spray down to 65 below zero. So that nothing is wasted, the starting fluid is completely flammable enabling the entire contents of the can to be used.

Akron Plastic Sold to N. J. Firm

Akron Products, Inc., 95 Prince St., Paterson, New Jersey, has taken over the patents and production facilities of the original developers of Akron plastic—the Akron Plastic Division of the Linen Thread Co., Inc. The new corporation is a wholly owned subsidiary of the Frank A. McBride Co., which purchased the division from Linen Thread. Akron Products will handle the foreign and domestic sales of all products except Ark Floats, which will be distributed in the United States by the Linen Thread Co. only.

Edward C. Feddema, vice president and general manager of the new firm was director of the division for Linen Thread. Joseph A. McBride is president of the company and J. Nevins McBride is vice president.

Akron is a plasticized polyvinyl chloride foam material with a closed cell structure. Made in forms that vary from the rigidity of wood to the softness of foam upholstery, it has densities from four to 20 pounds per cubic foot.

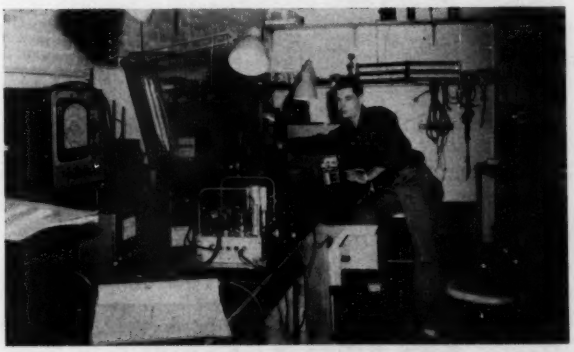
Northeast Expands Electronics Service

Northeast Communications & Engineering Corp. recently moved to new, larger quarters at 200 Anderson St., Portland, Me. where it has one of the most completely equipped commercial electronics shops in the State.

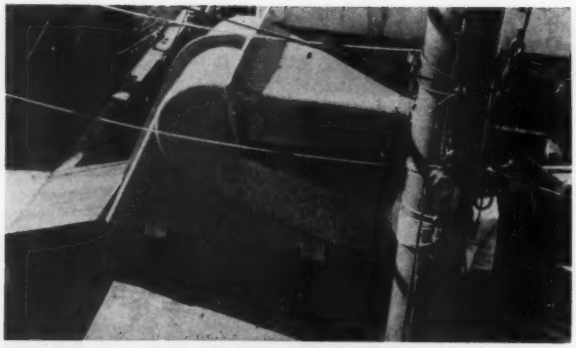
The firm has been appointed Maine distributor of the Raytheon Angler Fathometer, a new portable, self-powered depth sounder, especially designed for small boats. It has a recessed dial for reading in sunlight. Another new product handled is the General Electric transistorized audio amplifier with a siren feature. It can be used for talking to men on deck and between boats, and as a fog signal. There is no roll-off and it has ½ mile range over water.

Northeast recently delivered a Pearce Simpson Atlantic-70 telephone for installation by Seaside Lobster Co., Westpoint, in Charles Pye's new Westpoint Lobster boat. Other new Northeast dealers, besides Seaside, are Robert York of Phippsburg, Me., Maine Coast Boat Sales, Boothbay Harbor; and Brewer's Boatyard, Southport.

Members of the Northeast Communications firm are Lyman D. Chipman, Herbert F. Strout, Paul C. Swanson, Warren F. Morgan and Mrs. Miriam T. Chipman. There are five licensed technicians, and the Company handles the Raytheon, Pearce Simpson and G. E. mobile radio lines. Full bench test equipment and three service trucks are provided.



A section of the electronics repair service department in new quarters of Northeast Communications & Engineering Corp., Portland, Maine.



Fiberglas-reinforced plastic fish separator for use aboard commercial fishing craft, is manufactured by Carolina Fiberglas Products Co.

New Fish Separator Offered by Carolina Fiberglas Products

A Fiberglas-reinforced plastic fish separator, or dewaterer, which can separate 3,000 gallons of fish and water per minute, has been developed by Carolina Fiberglas Products Company, Wilson, North Carolina, for use on commercial fishing boats.

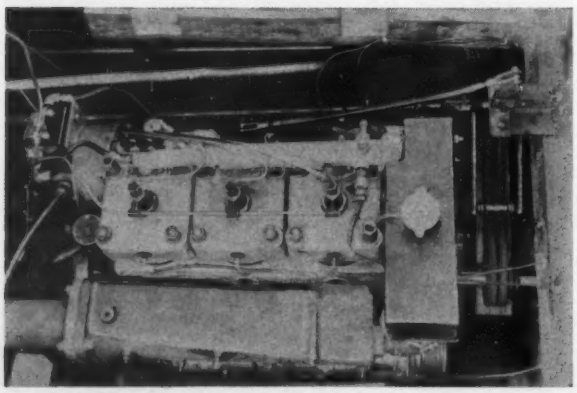
The separator filters out virtually all of the water brought up from the nets with the fish, before the fish are lowered into the hold. It can be adapted to fit any pumping system. Its durability and resistance to corrosion from salt water are designed for ocean and bay fishing operations.

Cerlist Introduces New Diesel Engines

Cerlist Diesel Inc., Burlington, N. C. has installed the first of its line of Diesel engines in the *Miss Ada*, owned by B. C. Smith, Vandemere, N. C. The Cerlist, Model 3M, with all accessories weighs 758 pounds and delivers 85 hp. at 3,000 rpm. with a maximum continuous speed of 2.6000 rpm. Model 3M is the first in production of a line of five models ranging from 55 to 225 hp.

The two-cycle engine is loop scavanging to eliminate all valves and their operating components. Intake and exhaust gases pass through cylinder ports. Another feature is cooling each piston crown with an oil spray forced through a passage in the connecting rod. The precombustion chamber with a high compression ratio of 22:1 is designed to make the new Cerlist Diesels relatively insensitive to the grade of fuel used.

Cerlist has recently appointed several distributors which include Hathaway Machinery Co., Inc. Fairhaven, Mass., throughout new England and the Maritime provinces; Van Winkle Marine, Red Bank, N. J., covering New Jersey.



New Cerlist Model 3M Diesel recently installed in "Miss Ada", owned by B. C. Smith, Vandemere, N.C., has 85 hp. at 3,000 rpm. and weighs 758 pounds

Shad Migration Habits

(Continued from page 9)

Very little evidence is available as to where shad spend the winter months. Only one tag was recovered during the period of December through January. This was tagged in the Connecticut River during the spawning season and recovered in the ocean off the New Jersey coast on December 13 of the following year. Because shad appear in abundance all along the middle and south Atlantic coast beginning in February, it is assumed that they spend the winter months in this area, probably in deep water.

The tag returns indicate that shad from the whole Atlantic Coast range of this species can be found during the summer months in the Gulf of Maine.

Almost all shad spawning in North Carolina and all south of North Carolina apparently die after spawning. This is disclosed from scale readings—No "repeater" fish were found—and also by the lack of returns from tagging after spawning. Therefore, recovery of Maine-tagged shad in southern streams indicates that these must have been tagged as immature shad which moved to the Gulf of Maine area during the summer months and then returned to southern rivers to spawn. This migration along with the immature shad from other Atlantic Coast streams accounts for the large number of immature shad found in the Gulf of Maine each summer.

Further evidence that shad return to their "home" stream to spawn is found in the fact that 83 percent of the fluctuations in size of run in the Connecticut River and 85 percent of the size of run in the Hudson River depends upon the spawning population in previous years. In other words, each of the runs of shad to these rivers are self-perpetuating and can fluctuate independently of other shad streams.

The Hudson River shad run has reached peaks of abundance twice during the past 50 years while neighboring streams such as the Connecticut have fluctuated independently and the Delaware River has been at a low level of production during the same period. This situation could only exist if the majority of shad return to their "home" stream to spawn.

Conclusion Drawn from Tagging

Tag recoveries show a definite migration pattern with little or no deviations. However, a few untagged shad have been reported in areas not in agreement with the general pattern. For instance, each year in the Connecticut River a few adult shad are found in the canal near Windsor Locks during the summer and fall months. These are in an emaciated condition and many are seen dead. It is believed that these become trapped in the canal and cannot find their way out and remain there until death or by chance they are carried out into the river during a lockage.

In every instance, however, these have been in small numbers and no tags have ever been recovered from them. It is concluded that these are the unusual cases and that the vast majority follow the migratory pattern shown by the tag returns and the corresponding large catches.

One factor that might be expected to obscure the recovery pattern of tags and lead to false conclusions, is the time of year that each of the fishing gears operate in each area of recovery. This does not appear to be the case.

In all spawning rivers shad are abundant only during the spawning run and the majority of the shad fishermen set their nets only during this period. In most rivers, however, fishing is done throughout the year for other species and this would disclose the presence of shad if they were in the rivers in any quantity other than during the regular shad season. It appears, therefore, that shad are in abundance only at those places and times as shown by the tag returns and that the pattern of tag return is not a result of the peculiarities of operation of fishing gear.

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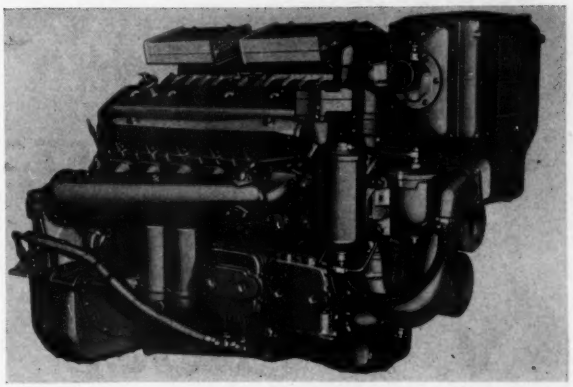
John Gobell, owner and Vice-President of the Seafood Producers Association selected GM's new engine for his 80-foot New Bedford dragger, "Whaler". This new GM 12V71 develops over one third more horsepower, in half the space and with one sixth the weight of his older engine. Mr. Gobell decided upon the new GM 12V71 because of the proven ability of the famous GM 6-71 marine engines which are so popular with the fishing fleet captains.



This is the 12 cylinder GM 12V71 Diesel installed in the "Whaler". It develops 335 continuous hp. at 1800 rpm.

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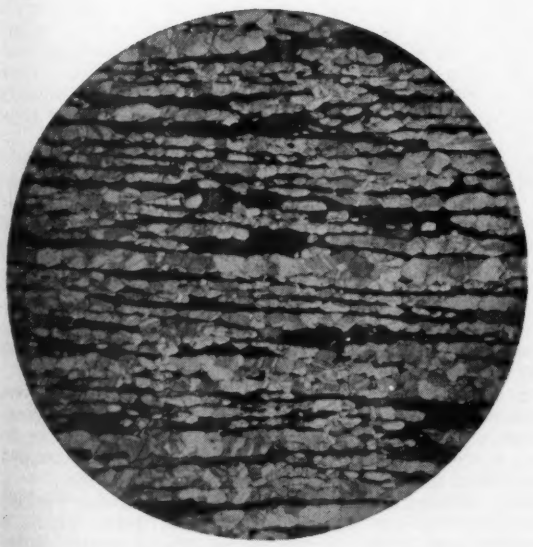

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Boston Trawler Has Aluminum Hold

(Continued from page 13)

The use of aluminum has resulted in less maintenance and down-time, easier cleaning, improved ice preservation and lower bacterial count, hence less spoilage. Fish odors, formerly absorbed and held by the wood materials are noticeably reduced by the impervious aluminum surfaces. Lighting is improved by the hold lining reflectivity. Overall trawler weight is lower. Weight fluctuation, due to absorption of water by the wooden pen boards and hold lining, has been eliminated.

Kaiser aluminum alloy 5052 was selected for the lining because of its good resistance to corrosive attack by sea water atmosphere, high strength and dent resistance. This is reported to be the first application of aluminum as a hold lining material in the United States, although it has been used in other countries.

Lower maintenance costs result from the use of aluminum by eliminating annual or semi-annual painting. In addition to the costs of the job itself, painting the hold took the boat out of service.

Improved Quality

An important factor in improving the quality of the fish, hence profits from the catch, is the reduction of the hold bacteria count. The combination of the insulated aluminum-lined hold and the use of a new chlorinated water treatment at the time the fish are cleaned, have substantially reduced the bacteria count. This decreases spoilage and helps keep the hold odor-free. The aluminum hold lining is easily cleaned and washed down.

Aluminum pen boards used on the *O'Brien* eliminate the semi-annual painting required for the previous material and greatly decrease overall weight and weight fluctuation. Wooden pen boards weigh eight pounds dry and 14½ pounds wet. Comparable aluminum extrusions have a constant weight of 5.4 pounds.

Prior to deciding to use the aluminum pen boards, a six month test was run aboard the *O'Brien*. The test demonstrated that the aluminum pen boards would not corrode under operating conditions, and could be expected to last from five to ten years with reasonable care.

The ribbed aluminum pen boards also act to decrease spoilage by allowing oxygen to reach the fish lying against them through the one-inch channels.

Saving in Ice

Because of aluminum's excellent thermal properties, the aluminum hold has a maximum cooling rate with a decrease in the amount of ice required as well as an increase in the efficiency of the ice. With the fishing boat at sea for a period of from eight to eleven days, proper icing to keep the fish fresh and to cut down the bacteria count is an important consideration to owners and crew alike.

Special tests were run by Kaiser Aluminum's Department of Metallurgical Research to determine what action the chlorine bath might have upon the aluminum. Following cleaning, the fish are dipped in the bath containing water and 60-parts-per-million of chlorine to retard the growth of bacteria and improve the quality of the fish. After thorough testing, Kaiser Aluminum was satisfied that the small amount of chlorine would not be detrimental to the aluminum sheet used in the hold. The use of the chlorinated washing has been advocated by the U.S. Fish & Wildlife Service.

As a result of the success of the *William J. O'Brien*, Shawmut Fisheries has also refitted the trawler *Weymouth* with aluminum pen boards and is planning to equip the entire fleet of trawlers first with aluminum pen boards and later with aluminum-lined fish holds.

Capt. William Canning is skipper, and Clarence Perkins chief engineer on the *William J. O'Brien*, which is powered with a 575 hp. Fairbanks-Morse Diesel. Rated for 250,000 lbs. fish hold capacity, the vessel has weighed out as much as 280,000 lbs. She still holds the record for the largest single trip money catch of $34,611 at Boston Fish Pier, landed in 1943.

Built by Bethlehem's Fore River Yard at Quincy, Mass. in 1928, the *O'Brien* has a beam of 23′ and draft of 11′. Her tonnage is 216 gross and 98 net, and she carries a crew of 17 men.

Four Other Vessels in Fleet

There are four other vessels in the O'Brien fleet. The *Atlantic, Plymouth* and *Thomas Whalen* are sister trawlers, built in 1934 at Bethlehem's Fore River Yard. They have a length of 110′, beam of 22′ and draft of 11.5′, with a hold capacity of 200,000 lbs. Accommodations are provided for 10 men forward and 6 aft, and power is supplied by 350 hp. Nelseco Diesels.

A virtual duplicate of the above vessels is the 110′ trawler *Weymouth*, built at Fore River in 1941. Her capacity is 225,000 lbs., main engine is a 375 hp. Nelseco, and her auxiliary power is 2 cylinder, 16 hp. Deseco Lister unit with a 7½ kw. Electro-Dynamic generator and Worthington compressor, furnished by Diesel Engine Sales & Engineering Corp.

These four trawlers are fueled and lubricated, with Socony-Mobil products, supplied by Trawler Oil Corp. of Boston. They have New England 5 hp. fish hoists, and carry a 15-man crew.

Louis Posner Marine Radio Equipment, Inc. services the electronic equipment on the entire O'Brien fleet. V. S. Croce handles the steel and welding work for all five trawlers. Stone & Forsythe supplies wire rope, mending twine and rounding rope. Bromfield Mfg. Co. and Bethlehem Steel Co. provide shipyard repair facilities for the vessels, which are equipped with Grimsby trawl nets, White compasses and Raytheon fish finders.

The O'Brien fleet is well maintained, with periodic inspection of all equipment. The vessels are hauled for bottom painting three times a year, and topsides are painted once or twice yearly. Mervin Nickerson is port engineer, and a marine department is located at 45 Boston Fish Pier.

Skippers on the O'Brien trawlers have had long experience and have been associated with the firm for many years. Capt. John Doran, for example, has fished for O'Brien for 25 years and has been on the *Weymouth* since she was built. Another veteran skipper is Capt. Allen Foote of the *Plymouth*. Capt James Geehan commands the *Atlantic*, and Capt. Michael Daley pilots the *Thomas Whalen*.

R. O'Brien & Company was founded in 1876 by Robert O'Brien, whose sons William J. and Daniel J. succeeded him. William J. O'Brien was a prime mover in the building of the present Boston Fish Pier and a plaque in his honor is located on the Fish Exchange Building.

Oldest independent fishing concern in Boston, the O'Brien Company was acquired by the Whalen family in 1924. Bart F. Whalen is treasurer of the firm, now Shawmut Fisheries, Inc., which has headquarters at 34 Boston Fish Pier. His nephew, Edward L. Drane, who joined the Company in 1936, is president and port captain. All of the firm's trawlers are incorporated separately, and have a reputation for being good producers.

Croaker Population Reductions Not Caused By Overfishing

Fishing in Chesapeake Bay accounts for the death of many fish, but has relatively little effect on the total abundance of croakers in Virginia waters. Test results, countering the traditional ideas that decline of a fishery is due to overfishing, are presented by the Virginia Fisheries Laboratory.

Not as obvious as extended fishing, are natural causes of decline including long, unfavorable weather, disease, and increased numbers of competitive fish. Of older croakers entering the bays, two-thirds apparently die or disappear before returning the ocean, according to Anthony Pacheco, Virginia Fisheries Laboratory biologist. Pacheco has been analyzing the returns of fish tags during the last two years.

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GREAT LAKES

Big Lamprey Decrease in Superior

A decisive decrease in the sea lamprey population in Lake Superior was reported to the Great Lakes Commission, when the international organization met at Sault Ste. Marie, Ontario, Canada, last month.

As a result of the promise shown in the current anti-lamprey campaign in Lake Superior, the Commission proposes to extend chemical treatment to Lakes Michigan and Huron.

The Bureau of Commercial Fisheries, Fish and Wildlife Service reported that by the end of July, the lamprey kill from 26 eastern Lake Superior streams was down 14 percent from 1958. Whether the decrease was caused by the new chemical treatment of spawning streams, electric barriers, natural causes or a combination was not specified.

However, a more significant drop in lamprey populations was noted in six streams treated with chemicals last year. Here the kill dropped from 28,822 in 1958 to 10,452 this year, a decrease of 57.9 percent.

Commissioner Donald McKernan, Fish and Wildlife representative, Washington, D. C., predicted a startling decrease in Lake Superior lamprey population next year.

Trawling Gear For Wisconsin

After being outlawed for commercial fishermen for many years, trawling gear appears to be coming back. Acting upon the advice of an advisory committee of commercial fishermen, The Wisconsin Conservation Department issued special permits for trawling to a few fishermen on Green Bay and Lake Michigan.

The committee recently asked for an extension of the experiment, and Dr. E. W. Schneberger, head of the department's fisheries division, indicated that he was agreeable.

Schneberger said he would recommend the extension of existing permits and possibly issue new ones, to make available more complete information on the effectiveness of trawling economically and its effects on fish populations.

Some fishermen have cited rising labor costs of regular fishing methods and evidence of rapidly increasing populations of less desirable fish such as alewife, as arguments in favor of trawling. Good success has been reported in taking smelt and herring on Green Bay by trawling the State Conservation Department said.

Remove Wisconsin Rough Fish

A total of 10,267,920 pounds of rough fish were removed from Wisconsin waters in 1958, according to the State Conservation Department, an increase of nearly 900,000 pounds over the 1957 figure. Most of the fish were carp and sheepshead. The department said the cash return from the sale of the fish was less than the year before, because of the many small carp taken. The large proportion of small carp was due to big hatches of these fish in 1955 and 1956 in some state waters, the department said.

Wisconsin Studies Catfish

The Wisconsin Conservation Commission has authorized a study of catfish in the Wisconsin River. It is an attempt to settle the sport-commercial fishing dispute.

There is question whether commercial fishermen should be permitted to operate at the mouth of the River. Some contend that commercial nets and traps prevent catfish from going into the river during the spring. Commercial interests say if the fish do not enter the river it is due to low water. The Commission has authorized the tagging of 2,000 fish.

Rough Fish Big Business On The Mississippi

Varied and widespread markets have made commercial fishing of rough fish a big business in the Pierce County, Wisconsin, area of the Mississippi River. Two fish markets now operate out of Bay City, shipping thousands of pounds of rough fish to eastern and midwestern markets. The fish include carp, sheepshead, buffalo, mooneye, and catfish.

Chicago and New York provide the major markets for fish taken from the area, but most of the mooneye are smoked and shipped to Canadian markets. For the Chicago-New York market, the larger fish are usually packed in ice in 100-pound, wooden boxes for shipment by rail or truck. Many carp are filleted, seasoned, and smoked, Small, otherwise unsalable rough fish are sold to mink ranchers.

Catfish are the least abundant fish in the Mississippi, but they bring the highest prices. Usually caught on set lines they are dressed and shipped to Chicago and Iowa markets.

Winnebago Sheepshead Decline

A decline in the take of sheepshead in Lake Winnebago is reported by the Wisconsin Conservation Department. Commercial fishermen and state crews have been operating a removal program for some years, and the catch of sheepshead has dipped from 33 percent to 45 percent in the last two seasons, the department said, indicating that the sheepshead population has dropped since the start of the removal program.

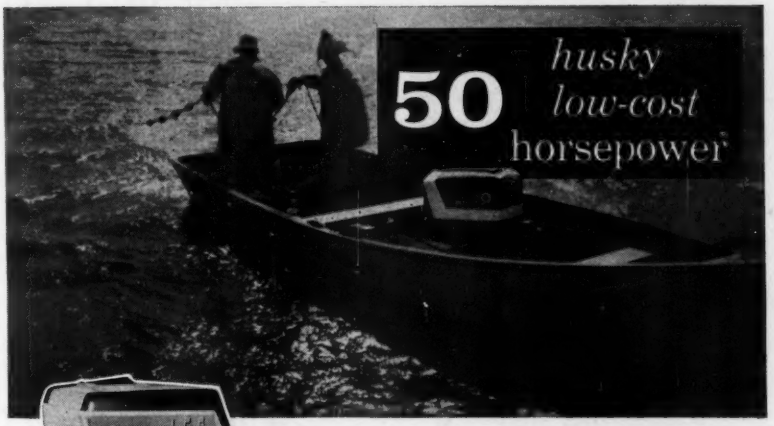
Meanwhile, the perch population of Lake Winnebago has been showing a steady climb. The department pointed out that sheepshead and perch compete for food.

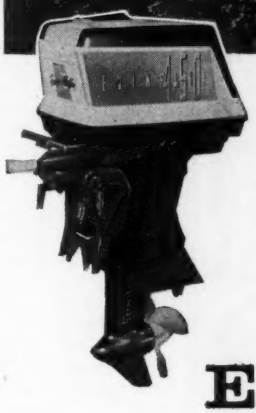
Michigan Regulations Set By Conservation Dept.

Recently signed into law by the Michigan governor was a bill empowering the State Conservation Commission to set commercial fishing regulations on the Great Lakes.

The measure grants the agency power to change seasons, set net sizes, specify which species are legitimate commercial prey, and to make other changes as needed. The powers were formerly exercised by the state legislature.

It is felt that Great Lakes regulations can be more uniform now that Michigan authorities can negotiate with those of other states without having to turn to the Legislature and await approval.





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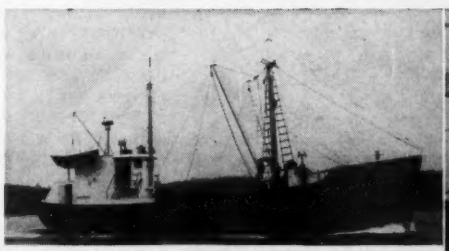
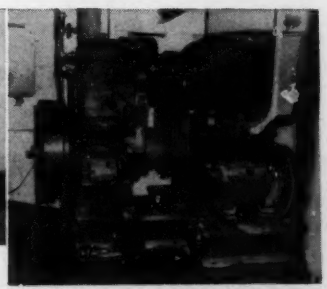


New 80-ft. Scalloper "Neptune". Nils Risdal, Owner, Fairhaven, Mass. Built by Harvey Gamage, South Bristol, Me. Launched June 11, 1959.



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Washed Shells For Cultch

(Continued from page 7)

Across from Bears Bluff Laboratories, on the northern shore of Wadmalaw River is a series of small, but typical, washed shell banks. Moderate to fresh southwest winds driving against a 3-knot ebb tide have piled the shell up in the marsh. One of the series is 125 feet long by 35 feet wide and has depth of approximately two feet. This bank contains about 7,000 bushels.

Although no attempt has been made to calculate the volume of washed shell available in all of South Carolina, the North Edisto River system which begins at the ocean and extends up to Bears Bluff Laboratories was surveyed to estimate the amount available. In the five miles from Bohicket Creek on the east bank and South Creek on the west bank of the North Edisto River on up the river to Dawhoo entrance near Bears Bluff, there are an estimated 525,000 bushels of raw washed shell. This is only one of the many river systems in the State having washed shell along their banks.

As noted before, approximately 50 per cent of the washed shell taken from the banks of the river would be removed, if screened through a 1 x 1 inch-square, mesh, wire screen. Thus, the North Edisto River would produce slightly more than 260,000 bushels of washed shell suitable for cultch.

No attempt has been made as yet to determine the cost of removing this washed shell from the banks of the river. There is a possibility that a sizeable part of the cost of removing the washed shell from the banks could be paid from the sale of the screened shell, which has a valuable use an an aggregate.

It is of interest to note that washed shell is a renewable resource. In 1948 and 1949 across from Bears Bluff, approximately 6,000 bushels of shell were removed from one bank now estimated to contain 7,000 bushels of shell. Since 1949, between 500 and 600 bushels of shell have been removed annually, but the pile recovers with each new fresh southwest wind and seems today to be as large as it was in 1948.

Tuna Clipper Stability

(Continued from page 8)

sank on her maiden voyage.

Another clipper, one of the newest and most modern in the California fleet, possesses apparently adequate transverse stability both in calm water and in waves. However, there is appreciable error in her calm-water stability as predicted by the conventional method of cross-curves. In view of this large error, it is apparent that transverse stability curves computed in the conventional manner can not be relied upon too heavily in the case of the usual broad flat counter stern type tuna clipper.

Two recommendations have been suggested to designers. As a result of the large trim-induced error contained in the transverse stability computed for tuna clippers by the conventional methods, a more exact investigation of the still-water stability during the design process is indicated. The inclusion of a "generous margin" of unknown magnitude is no substitute for exact knowledge. The more intensive investigations would be slightly more involved than the conventional methods and would yield results which are much more closely approximations of the actual situation.

It is shown that the most dangerous situation occurs when a wave crest is amidships, as the immersion of the deck edge amidships occurs at a smaller angle of heel than is required in calm water. Or, at the same heel angle, the deck edge is more deeply immersed in the wave crest than in calm water.

The righting moment could be increased in this case by an increase in freeboard amidships. Consequently, it may be possible to serve the needs of the fishing method by keeping the freeboard to a minimum aft and at the same time, materially improve the seagoing stability of the vessel by raising the freeboard amidships.

BOAT CATCHES

For Month of August

Hailing fares. Figure after name indicates number of trips.

SEATTLE (Halibut Fleet Fishery)

Addington (1)	47,000	Leviathan (2)	53,700
Akutan (1)	65,000	Lloyd (2)	36,700
Aleutian (1)	30,000	Lualda (1)	65,000
Aleutian Queen (1)	75 000	Lucky Star (1)	49,000
Allaverdy (1)	38,000	Maddock (3)	40,100
Alma (1)	45,000	Mermaid (1)	9 000
Angeles (2)	63,000	Miss Jean (1)	45,000
Atlantic (1)	47,000	Mother III (1)	30,000
B. C. Lady (1)	75,000	Nanna (2)	69,200
Bergen (2)	76,500	New Era (1)	60,000
Blanco (1)	8,000	New Washington (1)	65,000
California (3)	65,100	Norprince (1)	105,000
Christian S. (2)	75,000	Norrona (1)	35,000
Constitution (2)	106,000	Northern (1)	60,000
Daily (1)	48,000	Orbit (2)	25,700
Dolphin (1)	45,000	Phyllis Cormack (1)	48,000
Eclipse (1)	65,000	Pioneer III (1)	10 000
Estep (1)	17,000	Recovery (1)	50,000
Ethel S. (2)	78,500	Republic (1)	46,000
Eureka (2)	20,200	St. John II (1)	55,000
Faith II (2)	22,300	Salute (1)	65,000
Good Partner (1)	48,000	Sea Bird (1)	46,000
Grant (1)	45,000	Seattle (1)	58,000
Hoover (1)	62,000	Summit (2)	66,000
Ilene (1)	65,000	Susan (1)	55,000
Inez M. (2)	67,500	Sylvia (2)	87,500
Jane (2)	42,800	Thor (1)	62,000
J.B. (1)	17,100	Trinity (1)	60,000
Kaare (1)	77,000	Unimak (1)	45,000
Karen T. (1)	60,000	Vivian (1)	42,000
Kingfisher (1)	33,000	Zenith (1)	53,000

WOODS HOLE (Mass.)

Aerolite (1)	700	Grayling (2)	7,600
Albert (5)	4,000	Ingrid (1)	600
Angeline (4)	6,300	Intrepid (4)	7,100
Angenette (1)	1,800	Judy Sue (1)	800
Arnold (5)	20,900	Little Jeff (4)	8,900
Bernice (3)	11,300	Madeline (3)	3,900
Capt. Bill (1)	49,000	Marie & Katherine (1)	4,300
Cap'n Bill II (1)	45,500	Mary F. (4)	2,700
Clifton (5)	10,900	Mary Julia (1)	7,900
Comber (1)	1,500	Morning Star (3)	3,300
Curlew (8)	62,100	Phyllis J. (2)	8,300
Dorothy & Mary (1)	8,900	Priscilla (3)	5 900
Driftwood (5)	7,300	Reliance (5)	9,000
Ellena (5)	6,200	Ruth Nancy (2)	12,700
Eva Martin (1)	800	Shannon (1)	7,000
Fairweather (2)	5,700	Trina Lee (6)	13,600
Frankie & Jeanne (2)	9,100	Viking (5)	13,000

Swordfish Landings (Lbs.)

Aloysius (3)	4,300	Margie C. (1)	1,800
Amphrodite (6)	9,700	Mary C. (3)	3,800
Benway (1)	1,400	Natator (1)	300
Bridget Ann (1)	1,100	Papoose (2)	23,900
Elsa (1)	1,400	Slater (1)	1,100
Eva Martin (1)	300	Southern Cross (2)	6,700
Gale K. (1)	500	Three Bells (1)	5,100
Gertrude D. (1)	10,700	Valerie M. (2)	1,700
Ingrid (1)	1,200		

ROCKLAND (Me.)

Araho (3)	279,000	Mabel Susan (4)	117,500
Brighton (1)	130,000	Margaret Jean (8)	139,400
Elin B. (4)	302,500	Myrt II (6)	56,500
Ethel B. (7)	102,600	Ocean (1)	250 000
Helen Mae II (3)	168,000	Squall (2)	590,000
Jackie B. (3)	56,400	Storm (2)	500,000
John J. Nagle (1)	150,000	Surf (1)	280,000
Lilo (11)	162,400	Tide (1)	280,000
Little Growler (3)	133,000	Wave (1)	290,000
Louise G. (3)	70,000		

Scallop Landings (Lbs.)

Pocahontas (2)	22,000

NEW YORK

Josephine (1)	10,000

Scallop Landings (Lbs.)

Beatrice & Ida (2)	22,000	Karina T. (2)	22,000
Carol-Jack (3)	33,000	Muskegon (1)	8,100
David A. (4)	44,000	Norseman (1)	11,000
Enterprise (3)	33,000	Phyllis J. (3)	32,000
Felicia (4)	44,000	Sunapee (1)	9,000

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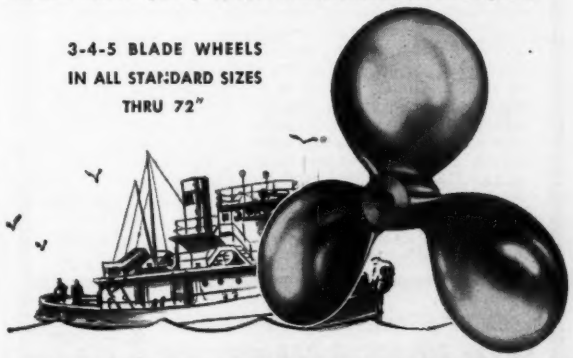

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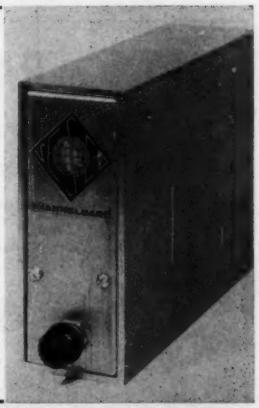

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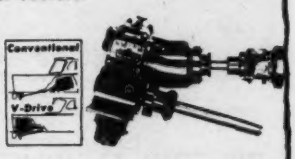

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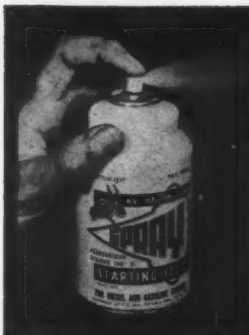

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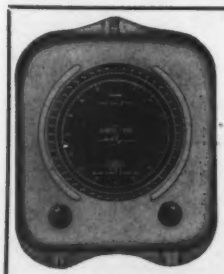

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BOSTON (Mass.)

Alphonso (1)	3,000	Mother Frances (3)	118,600
Annie & Lucy (2)	22,400		
Arlington (3)	311,000	New Star (2)	179,800
Atlantic (2)	121,100	Notre Dame (3)	109,600
Baby Rose (2)	95,400	Ohio (3)	227,000
Bonnie (2)	187,900	Olympia La Rosa (3)	129,500
Buzz & Billy (1)	36,300		
		Pam Ann (3)	172,400
Cambridge (3)	294,500	Patty Jean (2)	179,200
Caracara (2)	115,900	Phantom (2)	193,400
Carmen & Vince (3)	116,700	Philip & Grace (2)	136,700
Clipper (3)	158,500	Plymouth (3)	232,000
Columbia (1)	33 200	Princess (3)	28,800
Comet (2)	171,400		
		Racer (3)	354,000
Ethelena (3)	105,800	Red Jacket (1)	91,800
		Regina Maria (2)	102,600
Flying Cloud (2)	215,600	Rosa B. (3)	287,000
Four (3)	275,300	Rosie (5)	72,400
Geraldine & Phyllis (2)	61,200	St. Angelo (3)	102,100
Grace & Salvatore (3)	161,800	St. Marco (3)	137,900
		St. Rosalie (1)	21,600
Heroic (4)	397,500	Salvatore (2)	6,700
		San Calogero (2)	16,300
Jane B. (2)	101,000	Savoia (1)	9,500
J. B. Junior (1)	100,300	Sea Queen (2)	66,200
Jeanne D'Arc (2)	79,000	Star of the Sea (2)	77,200
Joseph & Lucia (2)	151,400	Swallow (2)	147,700
Josephine P. II (4)	134,600		
		Terra Nova (2)	160,000
Katie D. (2)	97,300	Texas (2)	80,600
Lady of the Rosary (4)	176,400	Thomas D. (3)	82,800
		Thomas Whalen (2)	141,700
Leonarda (1)	3,500		
		Villanova (2)	86,800
Magellan (3)	99,200		
Manuel F. Roderick (3)	115,800	Weymouth (3)	248,900
Maria Del S. (4)	42,700	Wm. J. O'Brien (2)	233,800
Mary & Joan (3)	200,400	Winchester (2)	180,500
M. C. Ballard (2)	132,200	Wisconsin (3)	362,900
Medan (3)	253,900		
Michigan (2)	186,500	Yankee (4)	51,500
Minnie (3)	338,800		

Swordfish Landings (No. of Fish)

Christine & Dan (1)	95	Tina B. (1)	88

GLOUCESTER (Mass.)

Acme (9)	168,000	Little Flower (9)	400,000
Admiral (2)	126,000		
Agatha (6)	741,500	Magnolia (1)	190,000
Agatha & Patricia (7)	856,000	Malolo (2)	146,000
American Eagle (9)	308,500	Manuel P. Domingoes (3)	470,000
Andrea G. (1)	65,000	Margaret Marie (9)	60,600
Anna Guarino (16)	28,000	Marianna II (9)	408,000
Ann & Marie (1)	12,000	Mary (3)	28,000
Anthony & Josephine (12)	299,000	Mary Ann (7)	320,000
Atlantic (3)	153,000	Mary Jane (2)	216,000
Ave Maria (6)	83,000	Morning Star (7)	204,500
Blue Waters (1)	8,000	Nancy & Maria (8)	102,000
Bonaventure (3)	246,000	Njorth (1)	2,500
Cape Cod (11)	155,900	Ocean Spray (2)	125,000
Carlo & Vince (11)	174,000	Olympia (6)	374,000
Cigar Joe (4)	144,000	Our Lady of Fatima (2)	380,000
Clinton (3)	2,000	Our Lady of Tears (1)	8,000
Courier (1)	138,000		
Curlew (2)	325,000	Pioneer (5)	63,000
		P. K. Hunt (2)	255,000
Dawn (15)	68,500	Prosperity (1)	5,000
Dolphin (2)	220,000		
Doris F. Amero (6)	502,500	Regina Maria (1)	30,000
		Rhode Island (5)	152,000
Eagle (2)	363,000	Rosalie S. (3)	87,000
Eddie & Lulu M. (1)	5,000	Rose & Lucy (8)	314,000
Edith L. Boudreau (2)	185,000		
Emily H. Brown (2)	300,000	St. Anna Maria (9)	223,000
Estrela (1)	220,000	St. John (10)	35,100
Eva II (17)	64,500	St. Joseph (2)	43,000
Evelyn L. Brown (1)	200,000	St. Mary (9)	406,500
		St. Nicholas (2)	365,000
Famiglia (4)	226,000	St. Peter (7)	310,000
Flow (1)	220,000	St. Peter III (10)	456,000
Frances R. (7)	268,500	St. Providenza (16)	87,500
		St. Rosalie (3)	31,000
Gaetano S. (2)	255,000	St. Stephen (4)	30,500
Gloucester (2)	380,000	St. Terese (9)	319,500
Golden Dawn (9)	96,500	St. Victoria (8)	910,500
Golden Eagle (2)	250,000	Salvatore & Grace (5)	181,500
		Sandra & Jean (4)	218,500
Holy Family (2)	325,000	Santa Maria (2)	155,000
Holy Name (10)	194,000	Sea Queen (1)	31,000
		Sebastiana C. (7)	404,500
Ida & Joseph (1)	20,000	Serafina N. (1)	19,000
Immaculate Conception (7)	251,000	Serafina II (11)	426,500
		Sol Fass (1)	160,000
Jackie B. (8)	333,500	Sunlight (1)	157,000
Jackson & Arthur (5)	18,000	Theresa M. Boudreau (1)	210,000
J.B.N. (4)	44,000		
Jennie & Lucia (6)	446,000	Villanova (1)	190,000
Joseph S. Mattos (2)	310,000	Vincie N. (4)	318,000
Judith Lee Rose (2)	550,000	Virginia Ann (9)	172,000
Lady of Good Voyage (2)	95,000	White Owl (7)	7,000
Lady of the Rosary (2)	7,000	Wild Duck (2)	310,000
Linda B. (1)	3,500		

NEW BEDFORD (Mass.)

Adventurer (3)	62,300	Little Jeff (1)	2,200
Agda W. (2)	34,000	Lorine III (3)	71,600
Althea (3)	78,300	Louis A. Thebaud (4)	85,200
Anastasia E. (2)	45,200	Major J. Casey (3)	93,500
Annie Louise (3)	16,500	Malvina B. (3)	64,100
Annie M. Jackson (3)	88,700	Marie & Katherine (2)	49,900
Austin W. (2)	32,000	Martha E. Murley (3)	69,100
Barbara M. (3)	48,900	Mary E. D'Eon (3)	37,900
Cap'n Bill II (2)	76,500	Mary J. Landry (4)	109,900
Capt. Deebold (3)	56,700	Mary Tapper (3)	94,200
Carl Henry (3)	85,000	Midway (1)	30,000
Catherine & Mary (4)	101,200	Miriam A. (2)	61,200
Charles E. Beckman (5)	69,200	Molly & Jane (4)	111,600
Christina J. (3)	113,700	Nancy L. (3)	46,600
Comber (3)	24,200	North Cape (2)	62,000
Connie F. (3)	77,700	North Sea (1)	34,000
Eugene H. (3)	60,000	Pauline H. (3)	265,000
Evelina M. Goulart (3)	106,500	Phyllis J. (1)	6,500
Falcon (3)	85,700	Roberta Anne (3)	98,500
Friendship (2)	46,200	Robert Joseph (4)	81,700
Gannet (3)	133,000	Rush (3)	90,500
Glen & Maria (2)	63,000	Sea Gold (3)	86,800
Growler (3)	87,900	Sea Rambler (3)	78,500
Harmony (3)	71,900	Shannon (3)	45,200
Hope II (3)	79,500	Sharon Louise (3)	66,500
Invader (4)	140,000	Smilyn (3)	82,000
Ivanhoe (2)	61,500	Solveig J. (2)	85,800
Janet & Jean (3)	71,100	Stanley B. Butler (2)	70,100
Joan & Ursula- (2)	70,000	Sunbeam (2)	55,500
John G. Murley (3)	215,300	Susie O. Carver (3)	27,200
Julia DaCruz (2)	54,000	Teresa & Jean (1)	38,000
Katie D. (1)	55,200	Two Brothers (4)	24,300
Laura A. II (3)	102,000	Valiant Lady (3)	87,500
Libby (2)	83,600	Venture I (2)	81,200
		Viking (3)	146,000

Scallop Landings (Lbs.)

Abram H. (2)	27,500	Lauren Fay (2)	23,200
Aloha (3)	34,500	Lillian B. (3)	38,400
Aipar (1)	11,600	Linda & Warren (1)	7,000
Amelia (3)	34,000	Linus S. Eldridge (2)	25,700
Babe Sears (2)	24,700	Little Infant (1)	4,000
Baltic (3)	34,400	Louise (2)	35,800
Barbara (2)	18,000	Lubenray (2)	22,400
Barbara & Gail (3)	38,200	Malene & Marie (2)	32,200
B. Estelle Burke (3)	35,900	Mary Ann (3)	40,600
Bobby & Harvey (2)	25,400	Mary J. Hayes (2)	28,000
Brant (3)	33,600	Moonlight (3)	26,400
Bright Star (2)	22,400	Nancy Jane (3)	34,400
Camden (3)	45,800	Neptune (3)	34,000
Carol & Estelle (2)	26,700	New Bedford (2)	31,700
Catherine B. (2)	22,400	Newfoundland (1)	18,000
Catherine C. (3)	45,200	Noreen (2)	26,700
Charles S. Ashley (3)	35,800	Pearl Harbor (3)	42,400
Clipper (2)	33,600	Pelican (2)	30,700
C. R. & M. (2)	17,500	Polaris (2)	32,100
Dartmouth (2)	34,600	Porpoise (2)	28,100
Debbie Jo-Ann (3)	29,900	Richard Lance (2)	31,700
Edgartown (3)	36,600	Ruth Lea (2)	31,600
Eleanor & Elsie (2)	35,400	Ruth Moses (3)	46,000
Elizabeth N. (3)	34,100	Sandra Jane (4)	48,800
Fairhaven (1)	21,500	Sea Ranger (2)	29,200
Flamingo (3)	35,400	Sippican (2)	42,700
Fleetwing (3)	33,600	Snoopy (3)	44,400
Florence & Lee (2)	22,800	Stanley M. Fisher (2)	22,400
Florence B. (3)	33,600	Stephen R. (2)	25,700
Geraldine (3)	36,400	Toscin (2)	29,600
Hilda Garston (2)	41,800	Ursula M. Norton (2)	25,400
Jerry & Jimmy (3)	39,100	Villa-Riall (2)	36,600
Josephine & Mary (2)	30,200	Vivian Fay (3)	35,600
Kingfisher (3)	35,900	Wamsutta (2)	24,500
Laura A. (2)	31,700	Whaling City (3)	38,700

Swordfish Landings (Lbs.)

Audrey M. (2)	3,600	Mildred & Myra (1)	4,200
Barracuda (2)	16,800	Natator (2)	3,300
Bozo (2)	10,800	Rita (1)	13,300
Christine & Dan (1)	16,800	Rosemarie V. (1)	5,000
Huntington Sanford (1)	11,000	St. George (1)	400
Luann (1)	15,200	Sanson Joy (2)	18,000
Margie O. (2)	5,600	Theresa (1)	13,000

PORTLAND (Me.)

Alice M. Doughty II (4)	146,000	North Sea (2)	380,000
Alton A. (3)	90,000	Ocean Life (1)	325,000
Andarte (4)	322,000	Quincy (2)	380,000
Ariel (4)	63,000	Rebecca II (9)	99,200
Bobby & Jack (2)	172,000	Resolute (3)	137,000
Challenger (6)	106,000	St. George (1)	180,000
Courier (1)	165,000	St. John (1)	180,000
Crescent (8)	105,200	St. Joseph (2)	11,300
Dorchester (2)	320,000	St. Joseph II (1)	9,000
Dorothy & Ethel (4)	74,000	Surfman (3)	28,000
Elin S. (2)	23,400	Theresa R. (3)	305,000
Elinor & Jean (1)	22,000	Vagabond (3)	190,000
Famiglia (4)	127,000	Vandal (3)	215,000
Frances R. (1)	90,000	Vida E. (1)	15,000
Gulf Stream (2)	326,000	Vida E. II (7)	114,700
Lawrence Scola (6)	90,600	Voyager (4)	160,000
Lawson (2)	200,000	Wawenock (2)	460,000
Mary & Helen (13)	92,300	Winthrop (2)	240,000

Scallop Landings (Lbs.)

Francis L. MacPherson (1)	11,000	Sylvester F. Whalen (1)	11,000

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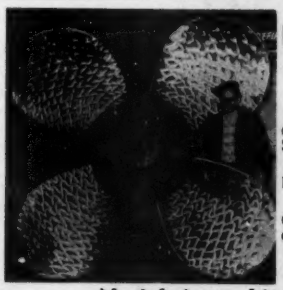

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United States Rubber Co., Rockefeller Center, New York, N .Y.

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Raytheon Manufacturing Co., 138 River St., Waltham 54, Mass.

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Caterpillar Tractor Co., Peoria, Ill.
Cummins Engine Co., Columbus, Ind.
Detroit Diesel Engine Div., General Motors Corp.,
13400 W. Outer Drive, Detroit 28, Mich.
Enterprise Engine & Machinery Co., 18th and Florida Sts., San Francisco 10, Calif.
Fairbanks, Morse & Co., Chicago, Ill.
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Hercules Motors Corp., 101 Eleventh St., S.E., Canton, Ohio
Hubbs Engine Co., 1168 Commonwealth Ave., Boston 34, Mass.
Lister-Blackstone, Inc., 42-32 21st St., Long Island City 1, N. Y.
H. O. Penn Machinery Co., Inc., East River and 140th St., New York, N. Y.
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FOREIGN BAILINGS

THIRD INTERNATIONAL TRADE fair, scheduled to take place in Copenhagen, Denmark, September 25 to October 4, 1959 will be on a larger scale than its predecessors, according to sponsors, Universal Fair and Exhibition Service. On display will be all kinds of equipment used in fishing and fish processing.

New inventions and techniques developed since the 1957 fair will be prominently featured. Particular attention will be given to fishing vessels.

ALUMINUM DORIES are being fished experimentally by the 600-ton, Portuguese vessel *Lousado*. The 75 dories which the craft was designed to carry were replaced this year by ten 21-foot aluminum boats. Each of the new boats is powered with an 8 hp. Diesel engine, and a variable pitch propeller. They are capable of speeds up to 6½ knots.

Each boat weighs about 1,800 pounds and has a capacity for 2,000 pounds of fish. Each is equipped with compass and oil lanterns. Once the fish is aboard the dory it is kept cool and clean by means of a constant flow of seawater which is mechanically pumped in and out of the boat.

FINANCIAL INCENTIVE is being provided again this year by the Canadian Government in an effort to control stocks of dogfish in British Columbia waters. $250,000 has been earmarked for special payments to fishermen at a rate of 10 cents per pound for dogfish livers.

FRASER RIVER HYDROELECTRIC development may be eliminated by the use of atomic power, according to the Canadian Fisheries Minister. This observation was made during a study of a preliminary report on flood control and hydroelectric power in the Fraser River basin.

ENGLISH FACTORYSHIP-trawler, *Fairtry II*, returned to Grimsby recently from its maiden trip with a load of 600 tons fillets and whole fish, 202 tons fish meal, and 3,600 gallons fish oil. *Fairtry II* is a sistership to the *Fairtry I*, which pioneered a new type of fishing vessel that combined fishing and processing in the same hull.

JAPAN IS PROTECTING FISHING craft by putting more patrol boats in waters between that country and South Korea as a precaution against possible seizure by South Koreans. Japan does not recognize the Rheeline extending up to 60 miles from the Korean coast and there have been many disputes about fishing rights.

THE JAPANESE NORTH PACIFIC factoryship-mothership salmon fishing fleet, this year, filled its quota 14 days ahead of the August 10 closing date, set under the Japanese-Soviet treaty.

This year's negotiations resulted in a cut of the salmon catch quota within the treaty area to 85,000 tons from last year's 11,000 tons. Mothership fleets were allotted 70,834 tons of which they took 70,650.

Species composition of the catch was reds (under voluntary limitation of 16,000 tons) 15,400 tons; pinks 27,000 tons, or more than 30 percent of the total; chums 24,400 tons; silvers 3,600 tons and kings 200 tons.

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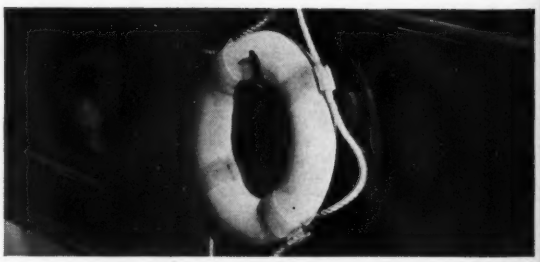

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